STIC Search Report
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STIC Database Tracking Number: 157939

TO: Andrew D Kosar **Location: rem/3C04/3C18** **Art Unit: 1654** **Saturday, July 16, 2005** **Case Serial Number: 10/800179**	**From: Noble Jarrell** **Location: Biotech-Chem Library** **Rem 1B71** **Phone: 272-2556** **Noble.jarrell@uspto.gov**

Search Notes

Access DB# 157939

SEARCH REQUEST FORM

Scientific and Technical Information Center

Rec'd by 7/18

Notified 7/14

Requester's Full Name: **Andrew D. Kosar** Examiner# : **80341** Date: **6/29/05**

Art Unit: **1654** Phone Number: **(571)272-0913** Serial Number: **10/800,179**

Mail Box and Bldg/Room Location: **Mail: REM 3c18** Results Format Preferred (circle): **Paper** Disk E-mail
Office: REM 3c04

If more than one search is submitted, please prioritize searches in order of need. ME

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Use of repeat sequence protein polymers in personal care compositions

Inventors (please provide full names): Manoj Kumar; William A. Cuevas

Earliest Priority Filing Date: 03/12/2003

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the attached generic claim.

Christopher Low
Result Search Approved
14 July 2005

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Searcher: NOBLE
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Searcher Location:
Date Searcher Picked Up:
Date Completed: 7/16/05
Searcher Prep & Review Time: 16
Clerical Prep Time:
Online Time: 34

Type of search

NA Sequence (#)
AA Sequence (#)
Structure (#)
Bibliographic ✓
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Full Text
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr. Link
Lexis/Nexis
Sequence System
WWW/Internet
Other (specify)

1. (currently amended) A personal care composition comprising an effective amount of a repeat sequence protein polymer and a physiologically acceptable carrier or excipient, wherein the repeat sequence protein polymer formula comprises:

$$T_y[(A_n)_x(B)_b(A'_{n'})_{x'}(B')_{b'}(A''_{n''})_{x''}]_iT'_{y'}$$

wherein:

T and T' each comprise an amino acid sequence of from about 1 to about 100 amino acids, wherein the amino acid sequence of T' is the same as or different from the amino acid sequence of T;

y and y' are each an integer from 0 to 1, wherein the integer of y' is the same as or different from the integer of y;

A, A' and A" are each individual repeating sequence units comprising from about 3 to about 30 amino acids, wherein the amino acid sequence of A' and the amino acid sequence of A" are the same as or different from the amino acid sequence of A;

n, n', and n" are integers of at least 2 and not more than 250;

x, x' and x" are each 0 or an integer of at least 1, wherein each integer varies to provide for at least 30 amino acids in the A', A' and A" individual repeating sequence units, and wherein the integer of x' and the integer of x" are the same as or different from the integer of x;

B and B' each comprise an amino acid sequence of from about 4 to about 50 amino acids, wherein the amino sequence of B' is the same as or different from the amino acid sequence of B;

b and b' are each an integer from 0 to 3, wherein the integer of b' is the same as or different from the integer of b;

i is an integer from 1 to 100, and

wherein the personal care composition is adapted to provide at least one benefit to the surface to which the personal care composition is applied.

The repeat sequence:

comprises a repeating amino acid sequence unit derived from elastin, collagen, abductin, byssus, flagelliform silk, dragline silk, gluten high molecular weight subunit, titin, fibronectin, leminin, gliadin, glue polypolypeptide, ice nucleating protein, keratin, mucin, RNA polymerase II, resalin or a mixture thereof.

Specific peptide sequences for A, A', and A" are independently SEQ ID NOs: 1, 3-18, and 20.

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=> d his

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     FILE 'REGISTRY' ENTERED AT 12:39:51 ON 16 JUL 2005

     FILE 'STNGUIDE' ENTERED AT 12:41:20 ON 16 JUL 2005

     FILE 'WPIX' ENTERED AT 12:42:26 ON 16 JUL 2005

     FILE 'WPIX' ENTERED AT 12:46:56 ON 16 JUL 2005

     FILE 'HCAPLUS' ENTERED AT 12:47:01 ON 16 JUL 2005
L1            3 US2004180027/PN OR US2003-454077#/AP,PRN

     FILE 'REGISTRY' ENTERED AT 12:48:19 ON 16 JUL 2005

     FILE 'HCAPLUS' ENTERED AT 12:48:21 ON 16 JUL 2005
L2              TRA L1 1- RN :       29 TERMS

     FILE 'REGISTRY' ENTERED AT 12:48:21 ON 16 JUL 2005
L3           29 SEA L2

     FILE 'WPIX' ENTERED AT 12:48:22 ON 16 JUL 2005
L4            2 US2004180027/PN OR US2003-454077#/AP,PRN

=> b hcap
FILE 'HCAPLUS' ENTERED AT 12:48:46 ON 16 JUL 2005
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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L1   ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:572329  HCAPLUS
ED   Entered STN:  01 Jul 2005
TI   Use of repeat sequence protein polymers in personal care compositions
IN   Kumar, Manoj
PA   USA
SO   U.S. Pat. Appl. Publ., 107 pp., Cont.-in-part of U.S. Ser. No. 800,179.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  A61K007-06
     ICS  A61K007-11
INCL 424070140; 514012000; 514013000; 514014000; 514015000; 514016000;
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514017000; 514018000
CC 62 (Essential Oils and Cosmetics)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2005142094	A1	20050630	US 2004-939036	20040910	<--
	US 2004180027	A1	20040916	US 2004-800179	20040312	<--
PRAI	US 2003-454077P	P	20030312	<--		
	US 2004-800179	A2	20040312			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 20050142094	ICM	A61K007-06	
	ICS	A61K007-11	
	INCL	424070140; 514012000; 514013000; 514014000; 514015000; 514016000; 514017000; 514018000	
US 2005142094	NCL	424/070.140; 514/012.000; 514/013.000; 514/014.000; 514/015.000; 514/016.000; 514/017.000; 514/018.000	<--
US 2004180027	NCL	424/070.140	
	ECLA	A61K008/64; A61Q005/00; A61Q019/00	<--

AB The present invention provides personal care compositions, and more particularly, personal care compositions comprising a bioactively effective amount of a repeat sequence protein polymer. In some particularly preferred embodiments, the present invention provides personal care compositions comprising an effective amount of at least one fragment of a repeat sequence protein polymer having bioactivity.

L1 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:1055222 HCAPLUS
ED Entered STN: 09 Dec 2004
TI Waveguide modulators having bias control with reduced temperature dependence
IN Tavlykaev, Robert
PA USA
SO U.S. Pat. Appl. Publ.
CODEN: USXXCO
DT Patent
LA English
IC ICM G02F001-295
INCL 385008000; 385009000
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2004247225	A1	20041209	US 2003-454077	20030604	<--
PRAI	US 2003-454077		20030604	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 20040247225	ICM	G02F001-295	
	INCL	385008000; 385009000	
US 2004247225	NCL	385/008.000; 385/009.000	
	ECLA	G02F001/225H	<--

AB Optical modulators with reduced temperature dependence on bias control are described. A set of bias electrodes is arranged relative to a set of RF electrodes in a manner which results in the operating point of the device remaining relatively constant as a function of temperature. The arrangement of the bias electrodes relative to the RF electrodes includes a physical offset of one set of electrodes relative to the other, with or without a reversal of polarity of one set of electrodes relative to the other. Arrangements according to the present invention create a symmetrical electrode arrangement from a temperature-induced stress point of view so that the operating point of the device remains relatively constant as a function of temperature.

L1 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:759607 HCAPLUS

DN 141:282398
ED Entered STN: 17 Sep 2004
TI Use of repeat sequence protein polymers in personal care compositions
IN Kumar, Manoj; Cuevas, William A.
PA USA
SO U.S. Pat. Appl. Publ., 50 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K007-06
ICS A61K007-11
INCL 424070140
CC 62-1 (Essential Oils and Cosmetics)
Section cross-reference(s): 6
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2004180027	A1	20040916	US 2004-800179	20040312	<--
	WO 2004080426	A2	20040923	WO 2004-US7758	20040312	<--
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	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	US 2005142094	A1	20050630	US 2004-939036	20040910	<--
PRAI	US 2003-454077P	P	20030312	<--		
	US 2004-800179	A2	20040312			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2004180027	ICM	A61K007-06	
	ICS	A61K007-11	
	INCL	424070140	
US 2004180027	NCL	424/070.140	
	ECLA	A61K008/64; A61Q005/00; A61Q019/00	<--
WO 2004080426	ECLA	A61K008/64; A61Q005/00; A61Q019/00	<--
US 2005142094	NCL	424/070.140; 514/012.000; 514/013.000; 514/014.000; 514/015.000; 514/016.000; 514/017.000; 514/018.000	<--

AB A personal care composition is provided which includes an effective amount of a repeat sequence protein polymer. The protein polymer contains repeating amino acid units derived from elastin, collagen, abduction, etc. The personal care composition may be a hair care composition, a skin care composition, a nail care composition, a cosmetic composition, or an over-the-counter pharmaceutical composition Thus, SELP47K, a silk-elastin repeat sequence protein block copolymer, was prepared with transgenic Escherichia coli. The glass transition temperature and tensile strength of SELP47K were determined SELP47K could be spun into a film composed of a non-woven web of nanofilaments 20-45 nm in diameter and 100 nm to 1 μm long.

ST silk elastin repeat block copolymer protein personal care product; cosmetic repeat sequence protein polymer SELP47K
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(abductins, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Shaving preparations
(aftershave; use of repeat sequence protein polymers in personal care compns.)
IT Shampoos
(antidandruff; use of repeat sequence protein polymers in personal care

compns.)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(byssus, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Detergents
(cleaning compns., antimicrobial; use of repeat sequence protein polymers in personal care compns.)
IT Shampoos
(conditioning; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(creams, moisturizers; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(eye liners; use of repeat sequence protein polymers in personal care compns.)
IT Silk
(flagelliform or dragline, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glue, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ice-nucleating, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(leminins, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(lipsticks; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(mascaras; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(nail lacquers, removers; use of repeat sequence protein polymers in personal care compns.)
IT Cosmetics
(nail lacquers; use of repeat sequence protein polymers in personal care compns.)
IT Drugs
(over-the-counter; use of repeat sequence protein polymers in personal care compns.)
IT Collagens, biological studies
Elastins
Fibronectins
Gliadins
Glutens
Keratins
Mucins
Titins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resalins, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)
IT Acne
(treatments for; use of repeat sequence protein polymers in personal care compns.)
IT Antiperspirants

Cosmetics
Dentifrices
Fungicides
Hair preparations
Mouthwashes
Shampoos
Skin preparations (pharmaceutical)
Sunscreens
(use of repeat sequence protein polymers in personal care compns.)

IT Proteins
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of repeat sequence protein polymers in personal care compns.)

IT 9014-24-8
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(II, repeating sequences of; use of repeat sequence protein polymers in personal care compns.)

IT 757271-63-9P
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; use of repeat sequence protein polymers in personal care compns.)

IT 61121-40-2 91037-65-9 101992-06-7 129179-15-3 189135-42-0
192432-25-0 203786-88-3 255838-40-5 255838-42-7 255838-52-9
627882-93-3 627882-95-5 629646-39-5 629646-42-0 629646-53-3
757271-61-7
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(repeat sequence; use of repeat sequence protein polymers in personal care compns.)

IT 757272-30-3 757272-31-4 757272-32-5
RL: PRP (Properties)
(unclaimed nucleotide sequence; use of repeat sequence protein polymers in personal care compns.)

IT 757272-29-0 757272-33-6 757272-34-7 757272-35-8 757272-36-9
757272-37-0 757272-38-1 757272-39-2
RL: PRP (Properties)
(unclaimed protein sequence; use of repeat sequence protein polymers in personal care compns.)

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* *
* The CA roles and document type information have been removed from *
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* available and contains the CA role and document type information. *
*                                                                   *
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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
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L3   ANSWER 1 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-39-2  REGISTRY
CN   15: PN: US20040180027 SEQID: 31 unclaimed protein (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE
SQL  965

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
=========+============
Not Given|US2004180027
         |unclaimed
         |SEQID 31

SEQ      1 MDPVVLQRRD WENPGVTQLN RLAAHPPFAS DPMGVGVPGV GVPGVGVPGV
        51 GVPGVGVPGV GVPGVGVPGV GVPGAGAGSG AGAGSGAGAG SGAGAGSGAG
       101 AGSGVGVPGV GVPGVGVPGV GVPGVGVPGV GVPGVGVPGV GVPGAGAGSG
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       951 LSAGRYHYQL VWCQK

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
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L3   ANSWER 2 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-38-1  REGISTRY
CN   14: PN: US20040180027 SEQID: 30 unclaimed protein (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE
SQL  1038

PATENT ANNOTATIONS (PNTE):
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Sequence Source	Patent Reference
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
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CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 3 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-37-0  REGISTRY
CN   13: PN: US20040180027 SEQID: 29 unclaimed protein (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE
SQL  1063

PATENT ANNOTATIONS (PNTE):
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Sequence Source	Patent Reference
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SEQ      1 MDPVVLQRRD WENPGVTQLN RLAAHPPFAS DPMGAHGPAG PKGAHGPAGP
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       151 GAQGPAGPGG AQGPAGPGGA QGPAGPGGAQ GPAGPGGAQG PAGPGGAQGP
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       451 GPAGPGGAQG PAGPGGAQGP AGPGGAQGPA GPGGAQGPAG PGGAQGPAGP
       501 GGAQGPAGPG GAQGPAGPGG AHGPAGPKGA HGPAGPKGAH GPAGPKGAHG
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       601 GAQGPAGPGG AQGPAGPGGA QGPAGPGGAQ GPAGPGGAQG PAGPGGAQGP
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       801 HGPAGPKGAQ GPAGPGGAQG PAGPGGAQGP AGPGGAQGPA GPGGAQGPAG
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       901 GPAGPGGAQG PAGPGGAQGP AGPGGAQGPA GPGGAQGPAG PGGAQGPAGP
       951 GGAQGPAGPG GAQGPAGPGG AQGPAGPGGA QGPAGPGGAQ GPAGPGGAQG
      1001 PAGPGGAQGP AGPGGAQGPA GPGGAHGPAG PKGAHGPAGP KMDPGRYQLS
      1051 AGRYHYQLVW CQK
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RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 4 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 757272-36-9 REGISTRY
CN 12: PN: US20040180027 SEQID: 28 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 246

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 unclaimed SEQID 28

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       101 AGSGAGAGSG VGVPGVGVPG VGVPGVGVPG EGVPGVGVPG VGVPGVGVPG
       151 AGAGSGAGAG SGAGAGSGAG AGSGVGVPGV GVPGVGVPGV GVPGEGVPGV
       201 GVPGVGVPGV GVPGAGAGSG AGAGSGAGAM DPGRYQDLRS HHHHHH
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RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 5 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 757272-35-8 REGISTRY
CN 11: PN: US20040180027 SEQID: 27 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 244

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 unclaimed SEQID 27

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       151 AGSGAGAGSG AGAGSGAGAG SGVGVPGVGV PGVGVPGVGV PGKGVPGVGV
       201 PGVGVPGVGV PGAGAGSGAG AGSGAGAMDP GRYQDLRSHH HHHH

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 6 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-34-7  REGISTRY
CN   10: PN: US20040180027 SEQID: 26 unclaimed protein (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE
SQL  246

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
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Not Given|US2004180027
         |unclaimed
         |SEQID 26


SEQ      1 MDPVVLQRRD WENPGVTQLN RLAAHPPFAS DPMGAGAGSG AGAGSGVGVP
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       201 GVPGVGVPGV GVPGAGAGSG AGAGSGAGAM DPGRYQDLRS HHHHHH

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 7 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-33-6  REGISTRY
CN   9: PN: US20040180027 SEQID: 25 unclaimed protein (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE
SQL  884

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
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Not Given|US2004180027
         |unclaimed
         |SEQID 25


SEQ      1 MDPVVLQRRD WENPGVTQLN RLAAHPPFAS DPMGAGSGAG AGSGVGVPGV
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       751 VPGVGVPGVG VPGVGVPGEG VPGVGVPGVG EPGVGVPGAG AGSGAGAGSG
       801 AGAGSGAGAG SGVGVPGVGV PGVGVPGVGV PGEGVPGVGV PGVGEPGVGV
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 8 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-32-5  REGISTRY
CN   DNA, d(G-G-G-A-G-T-T-G-G-G-G-T-A-C-C-T-G-G-A-C-G-A-G-G-T-G-T-T-C-C-G-G-G-G-
     G-T-A-G-G) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   7: PN: US20040180027 SEQID: 23 unclaimed DNA
FS   NUCLEIC ACID SEQUENCE
SQL  39
NA   5 a   5 c   21 g   8 t

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
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Not Given|US2004180027
         |unclaimed
         |SEQID 23


SEQ      1 gggagttggg gtacctggac gaggtgttcc gggggtagg

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CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 9 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757272-31-4  REGISTRY
CN   DNA, d(C-C-C-T-C-A-A-C-C-A-C-A-T-G-G-A-C-C-T-C-T-T-C-C-A-C-A-A-G-G-C-C-C-C-
     C-A-T-C-C) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   6: PN: US20040180027 SEQID: 22 unclaimed DNA
FS   NUCLEIC ACID SEQUENCE
SQL  39
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NA 9 a 20 c 4 g 6 t

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 unclaimed SEQID 22

SEQ 1 ccctcaacca catggacctc ttccacaagg cccccatcc
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 10 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 757272-30-3 REGISTRY
CN DNA, d(G-G-G-A-G-T-T-G-G-T-G-T-A-C-C-T-G-G-A-G-A-A-G-G-T-G-T-T-C-C-G-G-G-G-G-T-A-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5: PN: US20040180027 SEQID: 21 unclaimed DNA
FS NUCLEIC ACID SEQUENCE
SQL 39
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PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 unclaimed SEQID 21

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RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 11 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 757272-29-0 REGISTRY
CN 1: PN: US20040180027 SEQID: 2 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
SQL 53

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 unclaimed SEQID 2

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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
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CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 12 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757271-63-9  REGISTRY
CN   Protein SELP45K (synthetic silk-elastin repeat domain-containing) (9CI)
     (CA INDEX NAME)
OTHER NAMES:
CN   3: PN: US20040180027 SEQID: 19 claimed protein
FS   PROTEIN SEQUENCE
SQL  780

PATENT ANNOTATIONS (PNTE):
Sequence |Patent
Source   |Reference
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Not Given|US2004180027
         |claimed
         |SEQID 19


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       101 GVGPGVGPGA GAGSGAGAGS GAGAGSGAGA GSGVGVPGVG VPGVGVPGKG
       151 VPGVGPGVGP GVGPGVGPGA GAGSGAGAGS GAGAGSGAGA GSGVGVPGVG
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Patent
RL.P   Roles from patents:  BIOL (Biological study); PREP (Preparation); PRP
       (Properties); USES (Uses)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3   ANSWER 13 OF 29  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   757271-61-7  REGISTRY
CN   Peptide, (Gly-Gly-Phe-Gly-Gly-Met-Gly-Gly-Gly-Xaa) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   2: PN: US20040180027 SEQID: 4 claimed protein
FS   PROTEIN SEQUENCE
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SQL 10
NTE

type	------ location ------	description
uncommon	Aaa-10 -	-

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004180027 claimed SEQID 4

SEQ 1 GGFGGMGGGX

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 14 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **629646-53-3** REGISTRY
CN Glycine, L-tyrosylglycylglycyl-L-seryl-L-serylglycylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 13: PN: US20040234609 SEQID: 15 claimed sequence
CN 22: PN: US20040228913 SEQID: 15 claimed sequence
CN 25: PN: WO03099465 SEQID: 15 unclaimed sequence
CN 27: PN: US20040180027 SEQID: 15 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 8

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2003099465 unclaimed SEQID 15

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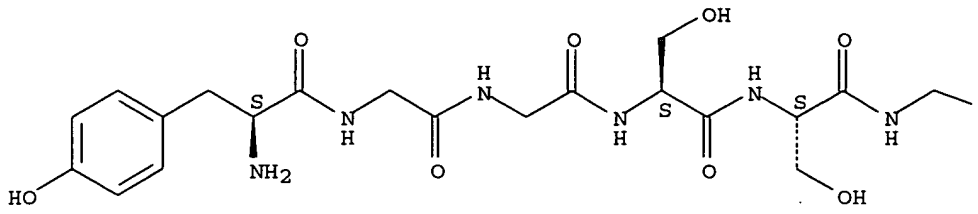
MF C25 H36 N8 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



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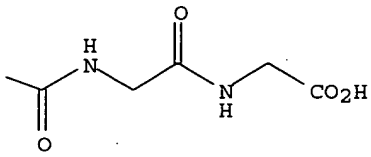

4 REFERENCES IN FILE CA (1907 TO DATE)
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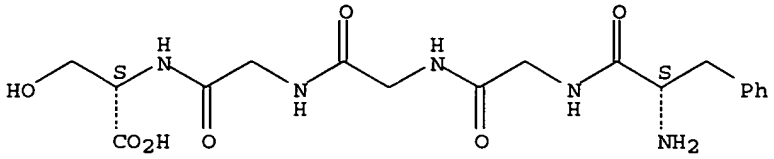
L3 ANSWER 15 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **629646-42-0** REGISTRY
CN L-Serine, L-phenylalanylglycylglycylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 14: PN: US20040234609 SEQID: 16 claimed sequence
CN 22: PN: WO03099465 SEQID: 16 unclaimed sequence
CN 23: PN: US20040228913 SEQID: 16 claimed sequence
CN 28: PN: US20040180027 SEQID: 16 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2003099465 unclaimed SEQID 16

SEQ 1 FGGGS
MF C18 H25 N5 O7
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



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4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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RN 629646-39-5 REGISTRY
CN L-Threonine, L-alanylglycyl-L-tyrosylglycyl-L-seryl-L-threonylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 12: PN: US20040234609 SEQID: 14 claimed sequence
CN 21: PN: US20040228913 SEQID: 14 claimed sequence
CN 21: PN: WO03099465 SEQID: 14 unclaimed sequence
CN 26: PN: US20040180027 SEQID: 14 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 8

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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MF C29 H44 N8 O13
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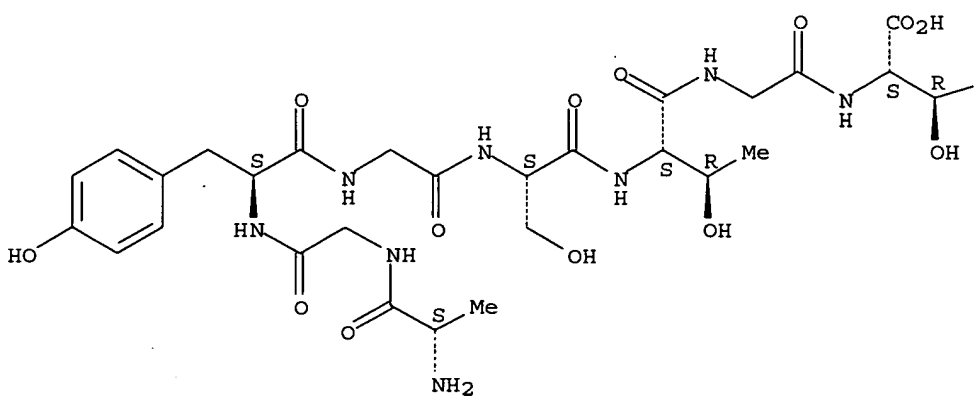
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



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4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 17 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **627882-95-5** REGISTRY
CN L-Alanine, L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-valyl-L-prolyl-L-α-glutamyl-L-valyl-L-prolyl-L-lysyl-L-lysyl-L-prolyl-L-valyl-L-prolyl-L-α-glutamyl-L-α-glutamyl-L-lysyl-L-valyl-L-prolyl-L-valyl-L-prolyl-L-valyl-L-prolyl-L-lysyl-L-lysyl-L-prolyl-L-α-glutamyl- (9CI) (CA INDEX NAME)
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CN 16: PN: US20040228913 SEQID: 9 claimed sequence
CN 21: PN: US20040180027 SEQID: 9 claimed sequence
CN 7: PN: US20040234609 SEQID: 9 claimed sequence
CN 8: PN: WO03099465 SEQID: 9 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28

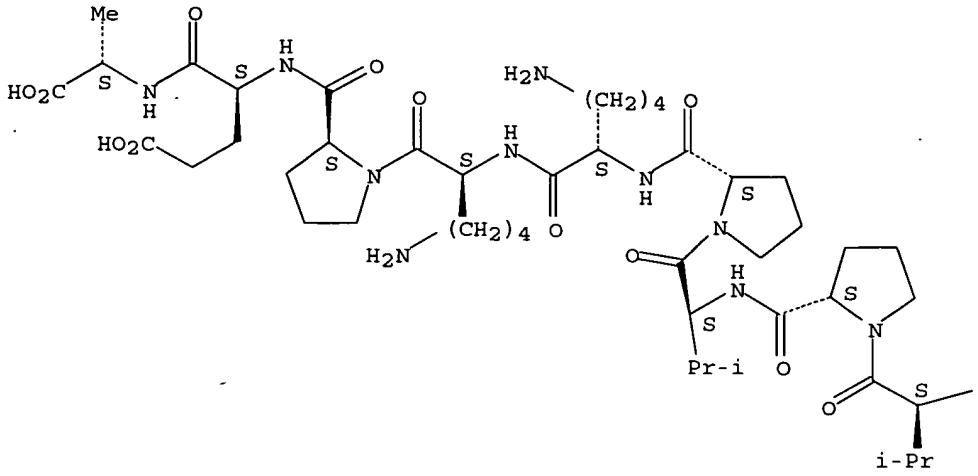
PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2003099465 claimed SEQID 9

SEQ 1 PPAKVPEVPK KPVPEEKVPV PVPKKPEA
MF C142 H236 N34 O37
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



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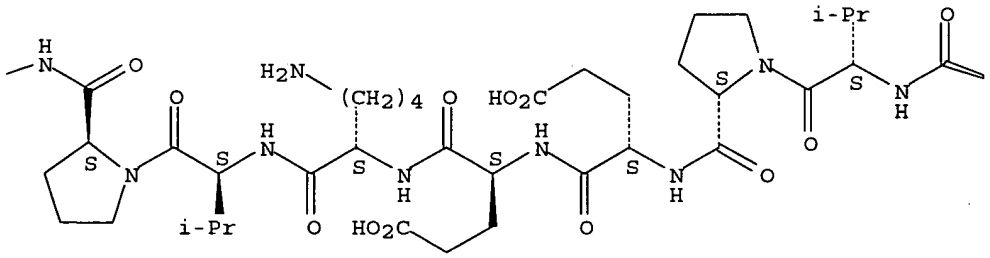

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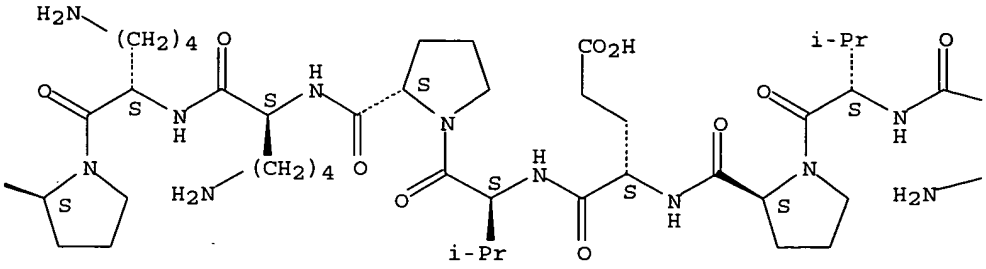

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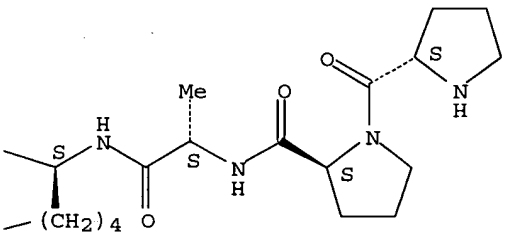

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4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 18 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 627882-93-3 REGISTRY
CN Glycine, glycyl-L-prolylglycylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 12: PN: US20040228913 SEQID: 5 claimed sequence
CN 18: PN: US20040180027 SEQID: 5 claimed sequence
CN 4: PN: US20040234609 SEQID: 5 claimed sequence
CN 4: PN: WO03099465 SEQID: 5 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5

PATENT ANNOTATIONS (PNTE):

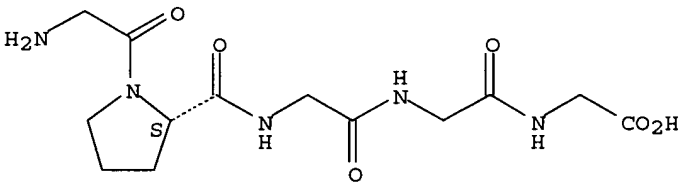
Sequence	Patent
Source	Reference

Not Given	WO2003099465 claimed SEQID 5

SEQ 1 GPGGG

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C13 H21 N5 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



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L3 ANSWER 19 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **255838-52-9** REGISTRY
CN L-Lysine, L-seryl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-seryl-L-prolyl-L-lysyl-L-tyrosyl-L-valyl-L-tyrosyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 16: PN: US6018030 SEQID: 16 unclaimed sequence
CN 17: PN: US20040228913 SEQID: 10 claimed sequence
CN 22: PN: US20040180027 SEQID: 10 claimed sequence
CN 8: PN: US20040234609 SEQID: 10 claimed sequence
CN 9: PN: WO03099465 SEQID: 10 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12

PATENT ANNOTATIONS (PNTE):

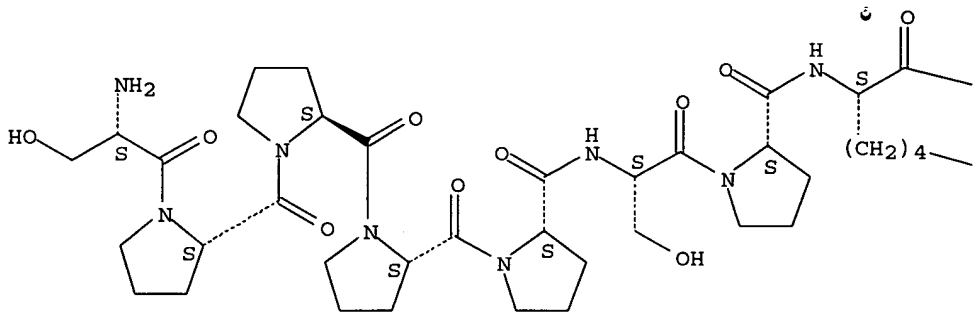
Sequence Source	Patent Reference
Not Given	US6018030 unclaimed SEQID 16

SEQ 1 SPPPPSPKYV YK
MF C66 H98 N14 O17
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological

study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

PAGE 1-A



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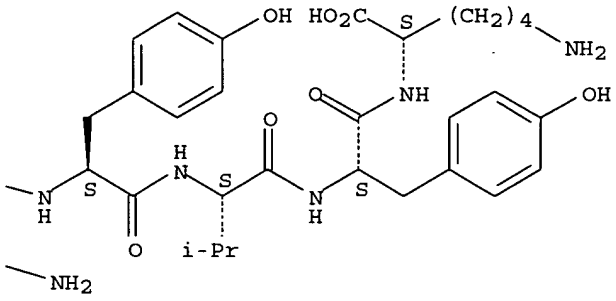

5 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 20 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 255838-42-7 REGISTRY
CN L-Valine, L-threonyl-L-threonyl-L-threonyl-L-prolyl-L-α-aspartyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 15: PN: US20040234609 SEQID: 17 claimed sequence
CN 23: PN: WO03099465 SEQID: 17 unclaimed sequence
CN 24: PN: US20040228913 SEQID: 17 claimed sequence
CN 29: PN: US20040180027 SEQID: 17 claimed sequence
CN 4: PN: US6018030 SEQID: 4 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 6

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
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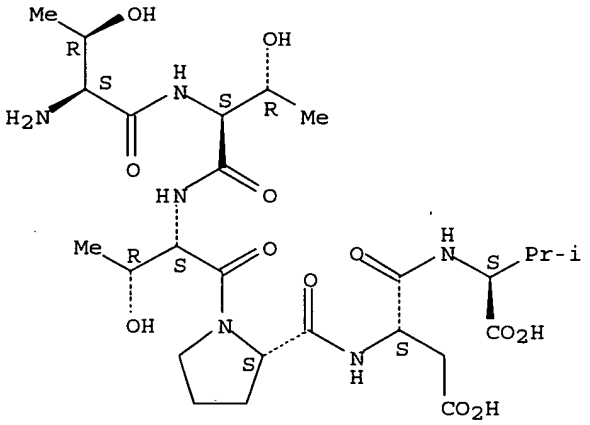
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



5 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 21 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 255838-40-5 REGISTRY
CN L-Lysine, L-prolyl-L-threonyl-L-threonyl-L-threonyl- (9CI) (CA INDEX NAME)
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CN 1: PN: US6018030 SEQID: 1 unclaimed sequence
CN 20: PN: US20040228913 SEQID: 13 claimed sequence
CN 20: PN: WO03099465 SEQID: 13 unclaimed sequence
CN 25: PN: US20040180027 SEQID: 13 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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DT.CA CAplus document type: Patent
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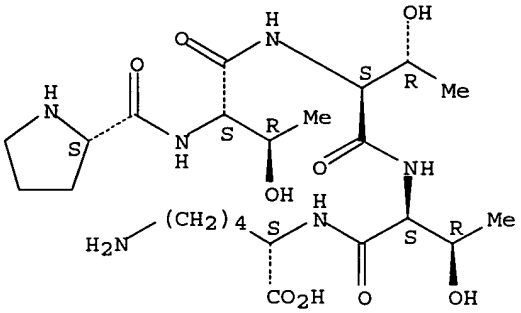
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



5 REFERENCES IN FILE CA (1907 TO DATE)
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L3 ANSWER 22 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN 203786-88-3 REGISTRY
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OTHER NAMES:
CN 11: PN: WO2005021587 PAGE: 38 unclaimed sequence
CN 14: PN: US20040228913 SEQID: 7 claimed sequence
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FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 9

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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SEQ 1 GYYPTSPQQ
MF C47 H65 N11 O16
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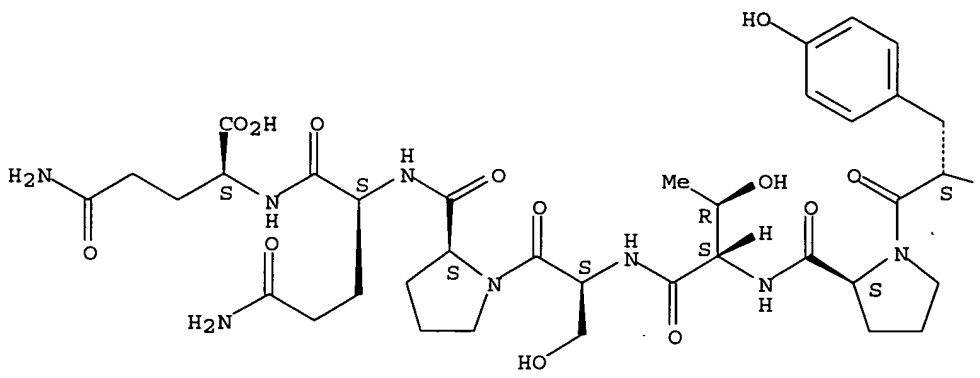
Absolute stereochemistry.

PAGE 1-A



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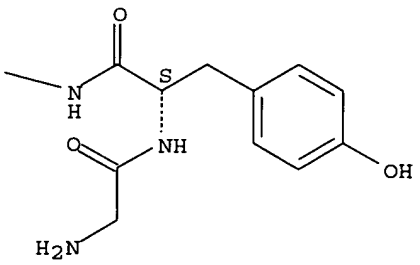

6 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 23 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **192432-25-0** REGISTRY
CN L-Tyrosine, L-prolyl-L-glutaminyl-L-glutaminyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 10: PN: US20040234609 SEQID: 12 claimed sequence
CN 19: PN: US20040228913 SEQID: 12 claimed sequence
CN 19: PN: WO03099465 SEQID: 12 unclaimed sequence
CN 24: PN: US20040180027 SEQID: 12 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2003099465 unclaimed SEQID 12

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RELATED SEQUENCES AVAILABLE WITH SEQLINK
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CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Journal; Patent
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RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PRP (Properties)
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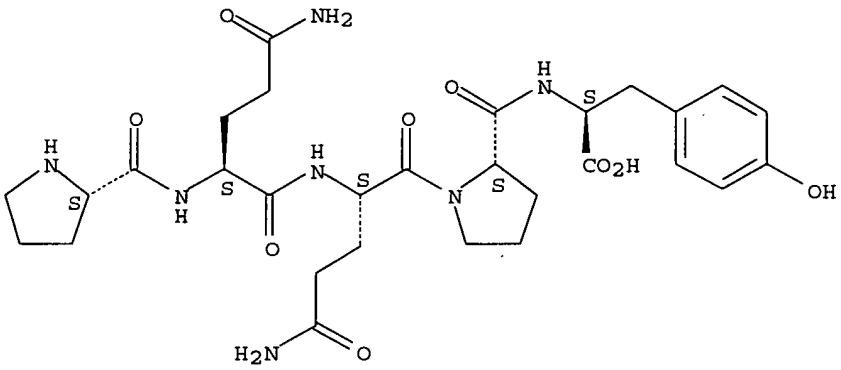
Absolute stereochemistry.



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9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 24 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **189135-42-0** REGISTRY
CN L-Glutamine, L-prolylglycyl-L-glutaminylglycyl-L-glutaminyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 10: PN: WO2005021587 PAGE: 38 unclaimed sequence
CN 13: PN: US20040228913 SEQID: 6 claimed sequence
CN 19: PN: US20040180027 SEQID: 6 claimed sequence
CN 5: PN: US20040234609 SEQID: 6 claimed sequence
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FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 6

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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PRP (Properties); USES (Uses)
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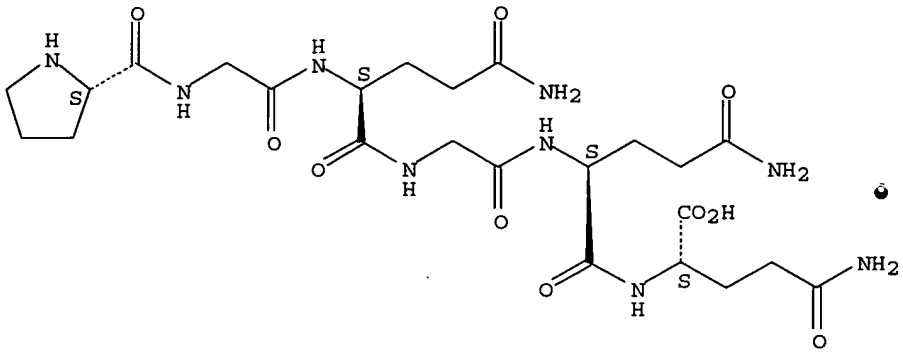
Absolute stereochemistry.



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CN L-Serine, N-[1-[N-[N-[1-(N-L-tyrosyl-L-seryl)-L-prolyl]-L-threonyl]-L-seryl]-L-prolyl]-
OTHER NAMES:
CN 16: PN: US20040234609 SEQID: 18 claimed sequence
CN 24: PN: WO03099465 SEQID: 18 unclaimed sequence
CN 25: PN: US20040228913 SEQID: 18 claimed sequence
CN 30: PN: US20040180027 SEQID: 18 claimed sequence
CN 41: PN: WO0132853 PAGE: 33 unclaimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 7

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	WO2001032853 unclaimed PAGE 33

SEQ 1 YSPTSPS

RELATED SEQUENCES AVAILABLE WITH SEQLINK
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SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Journal; Patent
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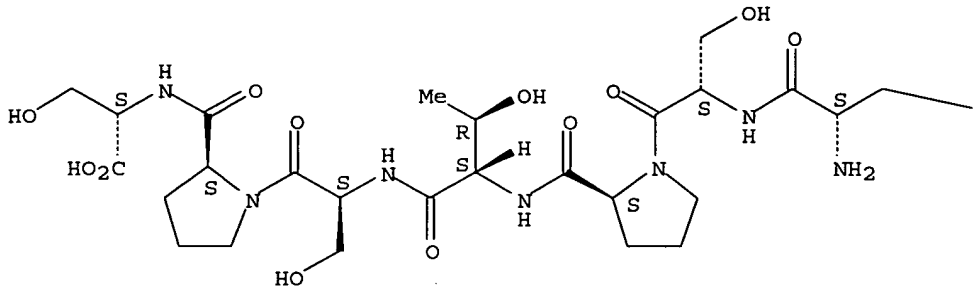
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP

(Properties)

Absolute stereochemistry.

PAGE 1-A



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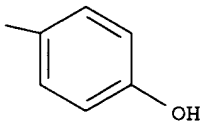

16 REFERENCES IN FILE CA (1907 TO DATE)
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16 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 26 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **101992-06-7** REGISTRY
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OTHER NAMES:
CN 10: PN: US20040228913 SEQID: 3 claimed sequence
CN 13: PN: JP2003210166 SEQID: 13 claimed protein
CN 17: PN: US20040180027 SEQID: 3 claimed sequence
CN 27: PN: US6004782 SEQID: 41 unclaimed protein
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FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5

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	US6018030 claimed SEQID 23

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DT.CA CAplus document type: Journal; Patent
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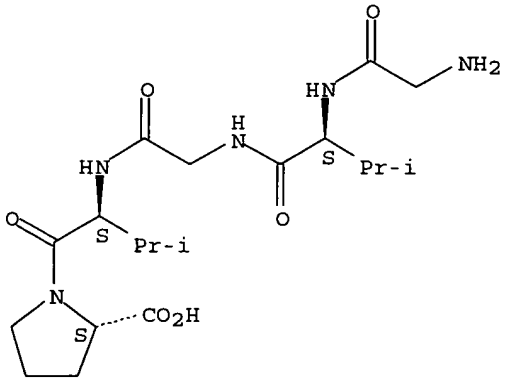
Absolute stereochemistry.



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L3 ANSWER 27 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
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OTHER NAMES:
CN 10: PN: JP2003089648 SEQID: 11 unclaimed
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CN 23: PN: US20040180027 SEQID: 11 claimed sequence
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CN 7: PN: US20040132667 SEQID: 7 unclaimed sequence
CN 91: PN: WO03072542 SEQID: 96 claimed sequence
CN 9: PN: US20040234609 SEQID: 11 claimed sequence
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FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 4

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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	US6013628 unclaimed SEQID 16
	US6043216 claimed SEQID 1
	US6051429 unclaimed SEQID 22
	US6060317 unclaimed SEQID 3
	US6084066 claimed SEQID 6
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	US6147189

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	US6376248 unclaimed SEQID 22
	WO2000004941 claimed PAGE 31
	WO2000044808 unclaimed TABLE 4
	WO2000069900 unclaimed SEQID 1126
	WO2001005991 unclaimed SEQID 17
	WO2001078529 unclaimed PAGE 26
	WO2001087071 unclaimed SEQID 2

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RELATED SEQUENCES AVAILABLE WITH SEQLINK
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LC STN Files: BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, MEDLINE, MSDS-OHS, PROUSDDR, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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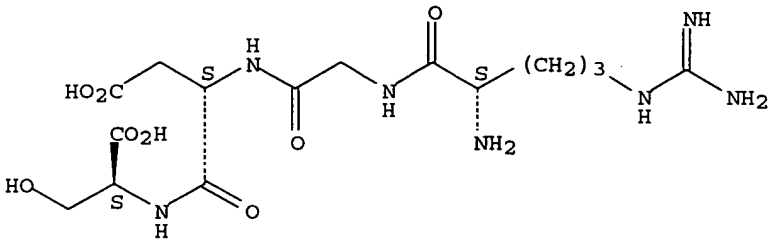
Absolute stereochemistry. Rotation (-).



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482 REFERENCES IN FILE CA (1907 TO DATE)
54 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
482 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 28 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **61121-40-2** REGISTRY
CN Glycine, L-serylglycyl-L-alanylglycyl-L-alanyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycine, N-[N-[N-[N-(N-L-serylglycyl)-L-alanyl]glycyl]-L-alanyl]-
CN Glycine, N-[N-[N-[N-(N-serylglycyl)alanyl]glycyl]alanyl]- (6CI, 7CI)
OTHER NAMES:
CN 16: PN: US20040180027 SEQID: 1 claimed sequence
CN 1: PN: US20040234609 SEQID: 1 claimed sequence
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CN 1: PN: WO03099465 SEQID: 1 claimed protein
CN 25: PN: WO2004035750 SEQID: 4 claimed sequence
CN 2: PN: WO0190389 SEQID: 2 unclaimed sequence
CN 9: PN: US20040228913 SEQID: 1 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 6

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
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	WO2001090389 unclaimed SEQID 2

SEQ 1 SGAGAG

RELATED SEQUENCES AVAILABLE WITH SEQLINK
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RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)
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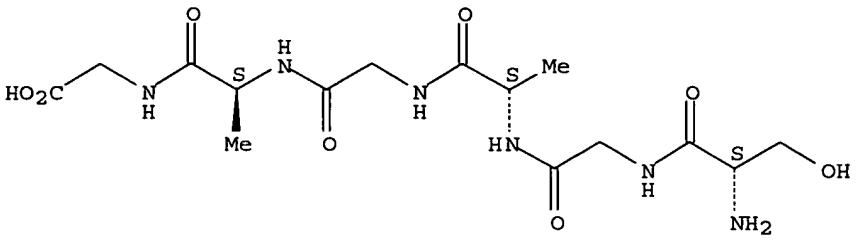
Absolute stereochemistry.



19 REFERENCES IN FILE CA (1907 TO DATE)
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5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 29 OF 29 REGISTRY COPYRIGHT 2005 ACS on STN
RN **9014-24-8** REGISTRY
CN Nucleotidyltransferase, ribonucleate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN C RNA formation factors
CN Deoxyribonucleic acid-dependent ribonucleic acid polymerase
CN DNA-dependent ribonucleate nucleotidyltransferase
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CN DNA-dependent RNA polymerase
CN E.C. 2.7.7.6
CN Ribonucleate nucleotidyltransferase
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CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

18791 REFERENCES IN FILE CA (1907 TO DATE)
273 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
18810 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> b wpix
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FILE LAST UPDATED: 15 JUL 2005 <20050715/UP>
MOST RECENT DERWENT UPDATE: 200545 <200545/DW>
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FOR DETAILS. <<<
'BIX BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d all l4 tot

L4 ANSWER 1 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-063763 [07] WPIX
DNN N2005-055215
TI Optical modulator, has RF electrodes on substrate proximate to waveguide for establishing electric field to modulate optical signal, and bias electrodes on substrate proximate to waveguide for establishing field to bias modulator.
DC P81 V07 W02
IN TAVLYKAEV, R
PA (TAVL-I) TAVLYKAEV R
CYC 1
PI US 2004247225 A1 20041209 (200507)* 18 G02F001-295
ADT US 2004247225 A1 US 2003-454077 20030604
PRAI US 2003-454077 20030604
IC ICM G02F001-295
AB US2004247225 A UPAB: 20050128
NOVELTY - The modulator has an optical waveguide on a substrate. A RF set of electrodes (22-26) on the substrate proximate to the waveguide establishes an electric field to modulate an optical signal. A bias set of electrodes (42-46) on the substrate proximate to the waveguide establishes an electric field to bias the modulator. The sets of RF electrodes and bias electrodes are physically offset relative to one another.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for making optical modulators.
USE - Optical modulator , e.g. phase and amplitude modulation, for

optical information communication.
ADVANTAGE - The arrangement of the optical modulator creates a symmetrical electrode arrangement, such that the operating point of the modulator remains constant as a function of temperature, thus reducing the stress-induced temperature dependent component of bias.
DESCRIPTION OF DRAWING(S) - The drawing shows an arrangement of an RF set of electrodes and a bias set of electrodes relative to waveguide arms in an optical modulator.
Optical waveguide input 10
Upper waveguide arm 14
Lower waveguide arm 16
RF set of electrodes 22-26
Bias set of electrodes 42-46
Dwg.4/11
FS EPI GMPI
FA AB; GI
MC EPI: V07-K01A; V07-K02; W02-C04A1A

L4 ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-675584 [66] WPIX
DNC C2004-240846
TI Personal care composition useful as cosmetic, hair care or skin care product, comprises repeat sequence protein polymer and compounds such as carriers, excipients, liposomes, active ingredients, or emollients.
DC A26 A96 B04 D21 D22
IN CUEVAS, W A; KUMAR, M
PA (CUEV-I) CUEVAS W A; (KUMA-I) KUMAR M; (DOWO) DOW CORNING CORP; (GEMV) GENENCOR INT INC
CYC 108
PI US 2004180027 A1 20040916 (200466)* 50 A61K007-06 <--
WO 2004080426 A2 20040923 (200466) EN A61K000-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
ADT US 2004180027 A1 **Provisional US 2003-454077P 20030312**, US 2004-800179 20040312; WO 2004080426 A2 WO 2004-US7758 20040312
PRAI **US 2003-454077P 20030312**; US 2004-800179 20040312
IC ICM A61K000-00; A61K007-06
ICS A61K007-11
AB US2004180027 A UPAB: 20041015
NOVELTY - A personal care composition (I) comprises a repeat sequence protein polymer with the balance of the composition comprising one or more compounds chosen from carriers, excipients, liposomes, active ingredients, biological or botanical products, humectants, emollients, surfactants, thickening agents, silicone components, organic sunscreens, preservatives, neutralizing agents, perfumes and pigments.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for making (M1) a personal care composition comprising combining a repeat sequence protein polymer with a carrier or excipient to obtain a personal care composition.
ACTIVITY - Antimicrobial; Dermatological; Antiseborrheic; Fungicide. The ability of a single application of silk-elastin protein polymer (SELP) to diminish the visual effects of aging on skin was determined in vivo. Eleven impaneled subjects (age 35-70 years) showing clear signs of facial skin aging were instructed to use non-moisturizing soap to wash the face. After a seven-day conditioning phase, subjects were acclimated to the ambient temperature and humidity for thirty minutes. One side of the face of each subject was designated as the measurement side by random selection by computer. After baseline control data was collected, 5% SELP47K aqueous solution was applied to the face of each subject. Second set of measurements was made. At 30 minutes after application of SELP47K, fine

line factors decreased by a statistically significant 13% (p=0.05) as an indication of improved skin softness and the evenness of tone.

MECHANISM OF ACTION - None given.

USE - (I) is useful as a hair care composition such as shampoo, conditioner, anti-dandruff treatment, styling aids, styling conditioner, hair repair or treatment, serum, lotion, cream, pomade, or chemical treatment; skin care composition such as moisturizing body wash, body wash, antimicrobial cleanser, skin protectant cream, body lotion, facial cream, moisturizing cream, facial cleansing emulsion, surfactant-based facial cleanser, facial exfoliating gel, anti-acne treatment, facial toner, exfoliating cream, facial mask, after shave balm or sunscreen; skin care composition topically applied over-the-counter drugs comprising anti-fungal treatments, anti-acne treatments, skin protectants, and antiperspirants; cosmetic composition comprising a makeup composition chosen from eye gel, high-melting point lipstick, lipstick, lip gloss, lip balm, mascara, eyeliner, pressed powder formulation and foundation; nail care composition such as nail enamel, cuticle treatment, nail polish, nail treatment, or polish remover; an oral care composition such as toothpaste, mouth rinse, breath freshener, or whitening treatment; and over-the-counter pharmaceutical composition. The hair care composition is a shampoo such as conditioning shampoo or an anti-dandruff shampoo, and a conditioner such as leave-on hair conditioner, cream rinse or nourishing hair conditioner treatment. The hair care composition is a chemical treatment chosen from permanent waves, permanent and temporary relaxers, permanent hair dyes, semi-permanent hair dyes, and temporary hair dyes. The skin care composition is a sunscreen such as non-water-resistant sunscreen, very water-resistant sunscreen or water-in-silicone sunscreen. The cosmetic composition is a mascara such as non-waterproof mascara, waterproof mascara, volumizing mascara, lengthening mascara, curling mascara, anhydrous waterproof mascara, water-based mascara, or eyelash or eyebrow treatment; a pressed powder formulation such as loose powder, blush, eye shadow, or bronzing powder; foundation such as water-in-oil foundation, water-in-silicone foundation, oil-in-water foundation, anhydrous makeup stick, or cream-to-powder foundation (all claimed).

ADVANTAGE - (I) has desired characteristics such as transparent film formation, hydrogel formation, better efficacy and binding to skin, hair, nail, and oral surfaces, desired level of hydrophobicity with water-solubility, imparting luster, softness, moisture retainment, and mechanical properties (such as tensile properties, viscoelastic behavior, glass transition temperature, cloud temperature and decomposition temperature), and does not have any chemical modifications of the protein.

Dwg.0/3

FS CPI

FA AB; DCN

MC CPI: A03-C01; A05-F03; A06-A00E3; A12-V04A; A12-V04C; B04-C01; B04-H20A; B04-N01; B04-N02; B12-M05; B14-A04; B14-N06; B14-N17; B14-N17C; B14-N17D; B14-R01; B14-R02; B14-R03; B14-R05; D08-B; D08-B01; D08-B02; D08-B03; D08-B04; D08-B09; D09-E01

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=> d his full

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     FILE 'REGISTRY' ENTERED AT 12:48:19 ON 16 JUL 2005

     FILE 'HCAPLUS' ENTERED AT 12:48:21 ON 16 JUL 2005
L2                TRA L1 1- RN :       29 TERMS

     FILE 'REGISTRY' ENTERED AT 12:48:21 ON 16 JUL 2005
L3            29 SEA ABB=ON  PLU=ON  L2

     FILE 'WPIX' ENTERED AT 12:48:22 ON 16 JUL 2005
L4             2 SEA ABB=ON  PLU=ON  US2004180027/PN OR US2003-454077#/AP,PRN
L5               QUE ABB=ON  PLU=ON  V91#/M0,M1,M2,M3,M4,M5,M6 OR (C07K002 OR
                 C0K004 OR C07K005 OR C07K007 OR C07K009 OR C07K011 OR C07K014)/
                 IPC OR (B04-C01? OR C04-C01? OR B04-N? OR C04-N?)/MC
L6        216756 SEA ABB=ON  PLU=ON  (A61K006 OR A61K007)/IPC OR (B12-L? OR
                 C12-L? OR B14-N06? OR C14-N06? OR B14-R? OR C14-R? OR B14-N17?
                 OR C14-N17?)/MC OR (Q25? OR Q26? OR Q272 OR Q273 OR P91? OR
                 P93? OR P94?)/M0,M1,M2,M3,M4,M5,M6
                 E KUMAR M/AU
L7           208 SEA ABB=ON  PLU=ON  ("KUMAR M"/AU OR "KUMAR M A"/AU OR "KUMAR
                 M B"/AU OR "KUMAR M J"/AU OR "KUMAR M K"/AU OR "KUMAR M K
                 R"/AU OR "KUMAR M L"/AU OR "KUMAR M M"/AU OR "KUMAR M N"/AU OR
                 "KUMAR M P"/AU OR "KUMAR M S"/AU OR "KUMAR M V"/AU)
                 E CUEVAS W/AU
L8             7 SEA ABB=ON  PLU=ON  "CUEVAS W A"/AU
                 E CUEVAS B/AU
L9             4 SEA ABB=ON  PLU=ON  ("CUEVAS B"/AU OR "CUEVAS B R"/AU)
                 E GENENCOR/CS,PA
L10          544 SEA ABB=ON  PLU=ON  (GENENCOR/CS OR GENENCOR/PA OR "GENENCOR
                 INC"/CS OR "GENENCOR INC"/PA OR "GENENCOR INT"/CS OR "GENENCOR
                 INT"/PA OR "GENENCOR INT BV"/CS OR "GENENCOR INT BV"/PA OR
                 "GENENCOR INT CO LTD"/CS OR "GENENCOR INT CO LTD"/PA OR
                 "GENENCOR INT EURO OY"/CS OR "GENENCOR INT EURO OY"/PA OR
                 "GENENCOR INT EUROPE OY"/CS OR "GENENCOR INT EUROPE OY"/PA OR
                 "GENENCOR INT GMBH"/CS OR "GENENCOR INT GMBH"/PA OR "GENENCOR
                 INT INC"/CS OR "GENENCOR INT INC"/PA OR "GENENCOR INT INDIANA
                 INC"/CS OR "GENENCOR INT INDIANA INC"/PA OR "GENENCOR INT
                 INDIANA STATE CO LTD"/CS OR "GENENCOR INT INDIANA STATE CO
                 LTD"/PA OR "GENENCOR INTER INC"/CS OR "GENENCOR INTER INC"/PA)
L11        16350 SEA ABB=ON  PLU=ON  L5 AND L6
L12           29 SEA ABB=ON  PLU=ON  L11 AND (L7 OR L8 OR L9 OR L10)
L13            4 SEA ABB=ON  PLU=ON  L11 AND (L7 OR L8 OR L9)
L14           25 SEA ABB=ON  PLU=ON  L12 NOT L13
L15        16346 SEA ABB=ON  PLU=ON  L11 NOT L13
L16        16346 SEA ABB=ON  PLU=ON  L15 OR L14
L17        10043 SEA ABB=ON  PLU=ON  L16 NOT (PY>2003 OR PRY>2003 OR AY>2003)
L18         2263 SEA ABB=ON  PLU=ON  L17 AND US/PC.B
L19          110 SEA ABB=ON  PLU=ON  L18 AND COSMET?/BIX,BI,ABEX
L20          866 SEA ABB=ON  PLU=ON  L17 AND COSMET?/BIX,BI,ABEX AND (?PEPTID?/B
                 IX,BI,ABEX OR ?PROTEIN?/BIX,BI,ABEX)
L21          310 SEA ABB=ON  PLU=ON  L20 AND US/PC
L22           77 SEA ABB=ON  PLU=ON  L20 AND US/PC.B
L23           17 SEA ABB=ON  PLU=ON  (2003-352558/AN OR 2003-479370/AN OR
                 2003-503360/AN OR 2003-554827/AN OR 2003-585252/AN OR 2003-6700
                 26/AN OR 2003-777600/AN OR 2003-810975/AN OR 2003-811416/AN OR
                 2003-875898/AN OR 2003-897031/AN OR 2003-898099/AN OR 2003-8984
                 94/AN OR 2004-060164/AN OR 2004-061001/AN OR 2004-068859/AN OR
                 2004-141544/AN) AND L22

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FILE LAST UPDATED: 15 JUL 2005 <20050715/UP>
MOST RECENT DERWENT UPDATE: 200545 <200545/DW>
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FOR DETAILS. <<<
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=> d all l13 tot

L13 ANSWER 1 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-046149 [05] WPIX
DNC C2005-015735
TI Biomolecular conjugates useful in personal care products e.g. hair care composition, cosmetic, oral care composition, comprising conjugation product of repeat sequence protein polymer and active agents.
DC A21 A26 A96 B04 D21 D22
IN COLLIER, K D; **CUEVAS, W A**; **KUMAR, M**
PA (COLL-I) COLLIER K D; (CUEV-I) CUEVAS W A; (KUMA-I) KUMAR M; (DOWO) DOW CORNING CORP; (GEMV) GENENCOR INT INC
CYC 108
PI US 2004234609 A1 20041125 (200505)* 54 A61K038-17
WO 2004104020 A2 20041202 (200505) EN C07K000-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
ADT US 2004234609 A1 Provisional US 2003-470464P 20030514, US 2004-845936 20040514; WO 2004104020 A2 WO 2004-US15317 20040514
PRAI US 2003-470464P 20030514; US 2004-845936 20040514
IC ICM A61K038-17; C07K000-00
ICS A61K009-14
AB US2004234609 A UPAB: 20050124
NOVELTY - Biomolecular conjugates (I) comprising the conjugation product of a repeat sequence protein polymer and at least one active agent.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) a personal care composition (II) comprising (I);
(2) making (M1) (II), involves combining (I) with carrier or excipient to obtain (II);
(3) a personal care product composition (III) comprising the emulsion (EE1) comprising, by weight of the emulsion composition water (qs), emulsifiers (1-5%), thickener/stabilizers (0.1-3%), emollients(s) (2-10%), opacifier(s) (0-10%), humectant(s) 0-10%, system (0.001-10%), functional ingredients (0.001-25%), preservative(s) (qs) and finishing ingredients

(qs);

(4) a personal care product composition (IV) comprising the surfactant system (SS1) comprising, by weight of the system composition of water (qs), primary surfactants (0.1-15%), secondary surfactants (0.1-10%), rheology modifier(s) (0.1-5%), alcohol(s) (0-25%), system (0.001-10%), functional ingredients (0-10%), conditioning ingredients (0-5%), preservative(s) (qs) and finishing ingredients (qs);

(5) producing (M2) (I) comprising a fusion protein conjugate comprising a conjugation product of a repeat sequence protein polymer and at least one active agent comprising a protein or peptide, involves selecting the repeat sequence protein polymer and the protein or peptide active suitable for a desired application, obtaining a gene encoding the repeat sequence protein polymer and a gene encoding the at least one active agent comprising a protein or peptide, constructing a conjugate gene from the gene encoding the repeat sequence protein polymer and the gene encoding the at least one active agent comprising a protein or peptide, expressing the conjugate gene to form an expression product comprising the fusion protein conjugate, fermenting the expression product comprising the fusion protein conjugate, and purifying the fusion protein conjugate;

(6) providing (M3) biomaterial adapted for at least one predetermined desirable function, involves selecting a (I), where the repeat sequence protein polymer comprises a silk elastin polymer and the at least one active agent comprises a protein or peptide, and further where the conjugation product comprises a fusion protein, according to the predetermined desirable function, and incorporating the biomolecular conjugate into a material;

(7) biomaterial (V) adapted for at least one predetermined desirable function comprising at least one (I), where the repeat sequence protein polymer comprises a silk elastin polymer and the active agent comprises a protein or peptide, and further where the conjugation product comprises a fusion protein; and

(8) a repeat sequence protein polymer comprising (I).

USE - (II) is a hair care composition, a skin care composition, a nail care composition, a cosmetic composition, an oral care composition, or an over-the counter pharmaceutical composition. (V) is a genetics research tool or a search and/or identification tool (claimed). (I) is useful in compositions such as (II) or (III).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A10-E01; A12-V04; **B04-C01**; B04-C03D; B04-E01; B04-L04A; **B04-N04**; **B04-N08**; B11-B; B11-C08F2; B12-K04A; B12-M02B; B12-M07; D08-B02; D08-B03; D08-B08; D08-B09; D08-B10; D09-C04B

L13 ANSWER 2 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2005-037015 [04] WPIX

DNC C2005-012379

TI System for providing controlled release delivery of active agent useful for incorporating active agents into personal care product compositions, comprises repeat sequence protein polymer and active agent.

DC A25 A26 A96 B04 B07 D16 D21

IN CHRISTIANO, S P; **KUMAR, M**; MAZEAUD, I

PA (CHRI-I) CHRISTIANO S P; (KUMA-I) KUMAR M; (MAZE-I) MAZEAUD I; (DOWO) DOW CORNING CORP; (GEMV) GENENCOR INT INC

CYC 108

PI US 2004228913 A1 20041118 (200504)* 34 A61K009-22

WO 2004104021 A2 20041202 (200504) EN C07K000-00

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

ADT US 2004228913 A1 Provisional US 2003-470465P 20030514, US 2004-845775 20040514; WO 2004104021 A2 WO 2004-US15318 20040514
PRAI US 2003-470465P 20030514; US 2004-845775 20040514
IC ICM A61K009-22; C07K000-00
AB US2004228913 A UPAB: 20050117
NOVELTY - A system (I) for providing controlled release delivery of an active agent, comprises a repeat sequence protein polymer, and at least one active agent.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a personal care composition (II) comprising (I);
(2) making (M1), comprising combining (I) with a physiologically acceptable carrier or excipient to obtain a personal care composition;
(3) enhancing (M2) delivery of repeat sequence protein polymers into personal care composition, comprising forming silicone-repeat sequence protein polymer complexes, and adding complexes to personal care compositions;
(4) complexes (III) comprising silicone and at least one repeat sequence protein polymer, where the at least one repeating sequence protein polymer comprises a genetically engineered silk-elastin like protein;
(5) an emulsion (IV) comprising (III); and
(6) a personal care composition comprising (IV).
USE - (I) is useful in hair care composition, skin care composition, nail care composition, cosmetic composition, oral care composition, or over-the-counter pharmaceutical composition (claimed). (I) is useful in shampoos, gels, mousses, and other hair care products; rinse-off conditioners; skin care products such as moisturizers, toners, and makeup; and nail care products such as polishes and polish removers.
ADVANTAGE - (I) enables controlled release of active agents (claimed).
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A12-V04; A12-W05; **B04-C01G**; B04-L03A; B04-L05; B04-L05A; **B04-N04A**; B12-M03; B12-M09; B12-M10A; B12-M11E; **B14-R01**; **B14-R02**; D05-A02A; D05-A02C; D08-B02; D08-B04; D08-B08; D08-B09A1; D08-B09A2

L13 ANSWER 3 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-675584 [66] WPIX
DNC C2004-240846
TI Personal care composition useful as cosmetic, hair care or skin care product, comprises repeat sequence protein polymer and compounds such as carriers, excipients, liposomes, active ingredients, or emollients.
DC A26 A96 B04 D21 D22
IN **CUEVAS, W A**; **KUMAR, M**
PA (CUEV-I) CUEVAS W A; (KUMA-I) KUMAR M; (DOWO) DOW CORNING CORP; (GEMV) GENENCOR INT INC
CYC 108
PI US 2004180027 A1 20040916 (200466)* 50 A61K007-06 <--
WO 2004080426 A2 20040923 (200466) EN A61K000-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
ADT US 2004180027 A1 Provisional US 2003-454077P 20030312, US 2004-800179 20040312; WO 2004080426 A2 WO 2004-US7758 20040312
PRAI US 2003-454077P 20030312; US 2004-800179 20040312
IC ICM A61K000-00; **A61K007-06**
ICS **A61K007-11**
AB US2004180027 A UPAB: 20041015
NOVELTY - A personal care composition (I) comprises a repeat sequence

protein polymer with the balance of the composition comprising one or more compounds chosen from carriers, excipients, liposomes, active ingredients, biological or botanical products, humectants, emollients, surfactants, thickening agents, silicone components, organic sunscreens, preservatives, neutralizing agents, perfumes and pigments.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for making (M1) a personal care composition comprising combining a repeat sequence protein polymer with a carrier or excipient to obtain a personal care composition.

ACTIVITY - Antimicrobial; Dermatological; Antiseborrheic; Fungicide. The ability of a single application of silk-elastin protein polymer (SELP) to diminish the visual effects of aging on skin was determined in vivo. Eleven impaneled subjects (age 35-70 years) showing clear signs of facial skin aging were instructed to use non-moisturizing soap to wash the face. After a seven-day conditioning phase, subjects were acclimated to the ambient temperature and humidity for thirty minutes. One side of the face of each subject was designated as the measurement side by random selection by computer. After baseline control data was collected, 5% SELP47K aqueous solution was applied to the face of each subject. Second set of measurements was made. At 30 minutes after application of SELP47K, fine line factors decreased by a statistically significant 13% (p=0.05) as an indication of improved skin softness and the evenness of tone.

MECHANISM OF ACTION - None given.

USE - (I) is useful as a hair care composition such as shampoo, conditioner, anti-dandruff treatment, styling aids, styling conditioner, hair repair or treatment, serum, lotion, cream, pomade, or chemical treatment; skin care composition such as moisturizing body wash, body wash, antimicrobial cleanser, skin protectant cream, body lotion, facial cream, moisturizing cream, facial cleansing emulsion, surfactant-based facial cleanser, facial exfoliating gel, anti-acne treatment, facial toner, exfoliating cream, facial mask, after shave balm or sunscreen; skin care composition topically applied over-the-counter drugs comprising anti-fungal treatments, anti-acne treatments, skin protectants, and antiperspirants; cosmetic composition comprising a makeup composition chosen from eye gel, high-melting point lipstick, lipstick, lip gloss, lip balm, mascara, eyeliner, pressed powder formulation and foundation; nail care composition such as nail enamel, cuticle treatment, nail polish, nail treatment, or polish remover; an oral care composition such as toothpaste, mouth rinse, breath freshener, or whitening treatment; and over-the-counter pharmaceutical composition. The hair care composition is a shampoo such as conditioning shampoo or an anti-dandruff shampoo, and a conditioner such as leave-on hair conditioner, cream rinse or nourishing hair conditioner treatment. The hair care composition is a chemical treatment chosen from permanent waves, permanent and temporary relaxers, permanent hair dyes, semi-permanent hair dyes, and temporary hair dyes. The skin care composition is a sunscreen such as non-water-resistant sunscreen, very water-resistant sunscreen or water-in-silicone sunscreen. The cosmetic composition is a mascara such as non-waterproof mascara, waterproof mascara, volumizing mascara, lengthening mascara, curling mascara, anhydrous waterproof mascara, water-based mascara, or eyelash or eyebrow treatment; a pressed powder formulation such as loose powder, blush, eye shadow, or bronzing powder; foundation such as water-in-oil foundation, water-in-silicone foundation, oil-in-water foundation, anhydrous makeup stick, or cream-to-powder foundation (all claimed).

ADVANTAGE - (I) has desired characteristics such as transparent film formation, hydrogel formation, better efficacy and binding to skin, hair, nail, and oral surfaces, desired level of hydrophobicity with water-solubility, imparting luster, softness, moisture retainment, and mechanical properties (such as tensile properties, viscoelastic behavior, glass transition temperature, cloud temperature and decomposition temperature), and does not have any chemical modifications of the protein.

Dwg.0/3

FS CPI

FA AB; DCN

MC CPI: A03-C01; A05-F03; A06-A00E3; A12-V04A; A12-V04C; **B04-C01**; B04-H20A; **B04-N01**; **B04-N02**; B12-M05; B14-A04;

B14-N06; B14-N17; B14-N17C;
B14-N17D; B14-R01; B14-R02;
B14-R03; B14-R05; D08-B; D08-B01; D08-B02; D08-B03;
D08-B04; D08-B09; D09-E01

L13 ANSWER 4 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-132758 [13] WPIX
DNC C2004-052966
TI Bioactive sol-gel solution useful for repairing hard and soft tissue defects comprises biocompatible polymer, gelable inorganic base material, and calcium and phosphorous molecular species.
DC A96 B04 D16
IN BRENNAN, A; **CUEVAS, B**; HATCHER, B M; SEEGERT, C
PA (BREN-I) BRENNAN A; (CUEV-I) CUEVAS B; (HATC-I) HATCHER B M; (SEEG-I) SEEGERT C; (UYFL) UNIV FLORIDA
CYC 102
PI WO 2004005533 A2 20040115 (200413)* EN 74 C12Q000-00
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
US 2004052861 A1 20040318 (200421) A61K009-14
AU 2003251899 A1 20040123 (200459) C12Q000-00
ADT WO 2004005533 A2 WO 2003-US21962 20030710; US 2004052861 A1 Provisional US 2002-395186P 20020710, US 2003-616884 20030710; AU 2003251899 A1 AU 2003-251899 20030710
FDT AU 2003251899 A1 Based on WO 2004005533
PRAI US 2002-395186P 20020710; US 2003-616884 20030710
IC ICM A61K009-14; C12Q000-00
ICS A61K033-42
AB WO2004005533 A UPAB: 20040223
NOVELTY - A bioactive sol-gel solution comprising a biocompatible polymer (a), a gelable inorganic base material (b), and at least one calcium and phosphorous molecular species (c), is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) a bioactive glass composite comprising (a) and (c); and
(2) formation of a bioactive glass involving mixing (a) - (c), and hydrolyzing the mixture.
ACTIVITY - None given.
MECHANISM OF ACTION - None given.
USE - For repairing hard and soft tissue defects (claimed).
ADVANTAGE - The solution has a pH of 1 - 7 (preferably 1.2 - 2), viscosity of 1.5 - 6 Pa sec at 25 deg. C, and is stable for at least 30 days at 25 deg. C.
Dwg.0/27
FS CPI
FA AB; DCN
MC CPI: A12-V03C2; B04-C03; **B04-N02**; **B04-N06**;
B14-N17; D05-H10

=> d all tech l23 1-8 13-17

L23 ANSWER 1 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-141544** [14] WPIX
CR 2004-080465 [08]
DNC C2004-056480
TI Anhydrous composition, e.g. anhydrous **cosmetic** formulations e.g. powders, sticks, and sprays comprises multiple solid nano- spheres, each comprising active agent and being encapsulated in moisture sensitive micro spheres.
DC A18 A28 A96 B07 D21 D22 P33
IN DAVID SHEFER, S; SHEFER, A; SHEFER, S D

PA (SHEF-I) DAVID SHEFER S; (SHEF-I) SHEFER A; (SALV-N) SALVONA LLC
CYC 102
PI US 2003198652 A1 20031023 (200414)* 13 A61K009-48 <--
WO 2003088894 A2 20031030 (200414) EN A61J000-00
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
AU 2003221855 A1 20031103 (200438) A61K009-48
ADT US 2003198652 A1 US 2002-124207 20020417; WO 2003088894 A2 WO 2003-US11029 20030411; AU 2003221855 A1 AU 2003-221855 20030411
FDT AU 2003221855 A1 Based on WO 2003088894
PRAI US 2002-124207 20020417
IC ICM A61J000-00; A61K009-48
ICS A61K009-16; A61K009-50
AB US2003198652 A UPAB: 20040616
NOVELTY - An anhydrous composition comprises multiple solid nano-spheres, each comprising first active agent. The solid nano-spheres are encapsulated in moisture sensitive micro spheres that are formed of moisture sensitive matrix material.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of forming the composition comprising incorporating the first active agent into the solid nano-spheres, forming an aqueous mixture comprising the solid nano-spheres and moisture sensitive matrix material, and spray drying the aqueous mixture to form a dry powder composition.

USE - The composition is for use as anhydrous **cosmetic** formulations e.g. powders, sticks, and sprays. The spray product can be deodorant, antiperspirant, body spray, foot spray, hygiene spray, feminine napkin spray or undergarment spray. The powder product is a deodorant body powder. The stick product is a lip balm, lipstick, makeup stick, underarm deodorant stick or underarm antiperspirant stick. (All claimed)

ADVANTAGE - The inventive composition provides prolong release of fragrances, flavors, and other active ingredients on the target site over an extended period of time.

Dwg.0/1
FS CPI GMPI
FA AB; DCN
MC CPI: A12-V04C; B04-B01B; B04-B01C1; **B04-C01**; B04-C02; B04-C03B; B04-C03C; B10-C04E; B12-M11G; B14-A01; B14-A04; B14-C01; B14-C03; B14-G02A; **B14-N17**; D08-B09A; D09-A01
TECH UPTX: 20040226
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The composition further comprises a second active agent encapsulated in the moisture sensitive matrix material that releases the second active agent upon contact with moisture. The nano-spheres comprise 1-80 wt.% first active agent, and 0.01-60 wt.% second active agent.
Preferred Components: The first or second active agent is fragrance, flavor, **cosmetic** agent, dermatological agent or pharmaceutical agent. Upon the contact of the moisture, the second active agent provides a burst and the active agent is released continuously for one day to few weeks.
Preferred Materials: The solid nano-spheres are formed of hydrophobic material. The hydrophobic material is natural wax, synthetic wax, vegetable wax, natural wax and silicon copolymer, synthetic wax and silicon copolymer, fatty acid esters, fatty alcohols, solid hydrogenated plant oil, natural polymers anti synthetic polymers. The hydrophobic material is alkylated polyvinyl pyrolidene, fatty acid esters, fatty alcohols, hydrogenated castor oil, hydrogenated vegetable oil, hard paraffin, hard fat and triglyceride. The moisture sensitive material is polyvinyl pyrrolidone, water soluble cellulose, polyvinyl alcohol, ethylene maleic anhydride copolymer, methyl vinyl ether maleic anhydride copolymer, polyethylene oxides, polyamide, polyester, copolymers or homopolymers of acrylic acid, polyacrylic acid, polystyrene acrylic acid

copolymer, starch derivatives, polyvinyl alcohol, polysaccharide, hydrocolloid, natural gum, and/or **protein**. The first active agent comprises anti-oxidants, free radical scavengers, moisturizers, depigmentation agents, reflectants, humectants, anti-microbial agents, antibacterial agents, allergy inhibitors, anti-acne agents, anti-aging agents, anti-wrinkling agents, antiseptics, analgesics, keratolytic agents, anti-inflammatory agents, fresheners, healing agents, anti-infective agents, inflammation inhibitors, wound healing promoters, **peptides**, **polypeptides**, **proteins**, deodorants, antiperspirants, skin emollients, skin moisturizers, tainting agents, skin lightening agents, antifungals, depilating agents, counter-irritants, poison ivy agents, poison oak agents, bum products, make-up preparations, vitamins, amino acids and derivatives, herbal extracts, cooling agents, heating agents, skin conditioners, chelating agents, cell turnover enhancers, color tag agents, sunscreens, nourishing agents, moisture absorbers, sebum absorbers, and skin penetration enhancers. The moisture sensitive matrix material is formed of 1-80 vol.% polyvinyl alcohol and 1-80 wt.% polysaccharide.

Preferred Method: The method further includes heating the hydrophobic material(s) to a temperature above melting point of the materials to form a melt, dissolving or dispersing the first active agent into the dissolving or dispersing a second active agent and moisture sensitive matrix material in the aqueous phase to form aqueous composition, heating the aqueous composition to above the inching temperature of the hydrophobic materials to form a hot melt, mixing the hot melt with the aqueous phase to form a dispersion, high shear homogenization of the dispersion at a temperature above the inching temperature until a homogeneous fine dispersion is obtained having a sphere size of 1-2 micrometers, cooling the dispersion to ambient temperature, and spray drying the emulsified mixed suspension to form a dry powder composition.

Preferred Parameters: The micro-sphere has a size of 2-100 micrometers. Each nano-sphere has average size of 0.01-5 micrometers.

L23 ANSWER 2 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-068859** [07] WPIX
CR 1999-169571 [15]
DNC C2004-028388
TI New bi-aromatic compounds, linked via heteroethynylene bond, useful for treating common acne, rosacea, Darier's disease, or palmoplantar keratoderma.
DC A25 A96 B05 D21
IN BERNARDON, J; DIAZ, P
PA (CIRD) GALDERMA RES & DEV
CYC 1
PI US 2003100583 A1 20030529 (200407)* 22 C07D333-32 <--
ADT US 2003100583 A1 Div ex US 1999-269997 19991209, CIP of US 2001-768496 20010125, US 2002-215202 20020809
FDT US 2003100583 A1 Div ex US 6200784, CIP of US 6441010
PRAI US 2002-215202 20020809; US 1999-269997 19991209; US 2001-768496 20010125
IC ICM C07D333-32
ICS A61K031-135; A61K031-381; A61K031-4015; A61K031-44; C07D213-63
AB US2003100583 A UPAB: 20041125
NOVELTY - Bi-aromatic compounds, linked via heteroethynylene bond, are new.

DETAILED DESCRIPTION - Bi-aromatic compounds of formula (I) linked via heteroethynylene bond, their optical isomers or salts (preferably alkali metal, alkaline earth metal, zinc or organic amine) are new.

Ar = pyridinyl, furanyl, or thiophenyl (all substituted by R1), phenyl (substituted at 4-position by R1 and substituted by R5), or pyrrolyl (substituted at 1-position by R6 and substituted by R1);

R1 = F, Cl, Br, -CH3, -CH2-OR7, -OR7, -COR8, methoxymethoxy, methoxyethoxy or methoxyethoxymethoxy;

R2 and R3 = H, T1, T2, -OR7 or -SR7;

R2+R3 = 5 or 6 membered ring (optionally substituted by at least one methyl and/or optionally interrupted by O or S);

R4 and R5 = H, F, Cl, Br, T1, -OR7, methoxymethoxy, methoxyethoxy or methoxyethoxymethoxy;
R6 = H, T or -OCOR9;
R7 = H, T or -COR9;
R8 = H, T, -OR10 or -N(Ra)(Rb);
R9 = T;
R10 = phenyl, benzyl, or phenethyl (all optionally substituted by at least one F, Cl, Br, OH or nitro), H, T1, T3, allyl, glucose, galactose, mannose or glucuronic acid;
Ra and Rb = H, T, T3, phenyl (optionally substituted by at least one F, Cl, Br, OH or nitro), lysine, glycine, aspartic acid or **peptide** residue;
NRaRb = piperidino, morpholino, pyrrolidino or piperazino (optionally substituted at 4-position by 1-6C alkyl or T3);
X = -Y-C equivalent to C-;
Y = O, S(O)n or Se(O)n';
n and n' = 0 - 2;
T = methyl, ethyl, isopropyl, butyl, tert-butyl, hexyl, 2-ethylhexyl or octyl;
T1 = methyl, ethyl, propyl, 2-ethylhexyl, octyl, dodecyl, hexadecyl or octadecyl;
T2 = cyclopropyl, cyclopentyl, cyclohexyl, 1-methylcyclohexyl or 1-adamantyl;
T3 = 2-hydroxyethyl, 2-hydroxypropyl, 3-hydroxypropyl, 2,3-dihydroxypropyl, 2,3,4-trihydroxybutyl, 2,3,4,5-tetrahydroxypentyl, or pentaerythritol.

At least one of R2 and R3 is T1 or T2. Provided that when n is 2 and Ar is phenyl (substituted at 4-position by R1 and substituted by R5) (where R1 is -CH3 and R5 is H), then at least one of R2 or R3 is other than -CH3.

INDEPENDENT CLAIMS are included for the following:

(1) use of (I) for the preparation of a medicinal product intended for the treatment of dermatological complaint and cardiovascular complaint; and

(2) a pharmaceutical composition comprising (I).

ACTIVITY - Antiinflammatory; Antiallergic; Antirheumatic; Respiratory-Gen.; Cardiovascular-Gen.; Ophthalmological; Antiseborrheic; Dermatological; Antipsoriatic; Virucide; Cytostatic; Antiarthritic; Endocrine-Gen.; Antiarteriosclerotic.

MECHANISM OF ACTION - RAR-agonist. 4-(5,5,8,8-Tetramethyl-5,6,7,8-tetrahydro-2-naphthylsulfanylethynyl)benzoic acid (A) was tested for RAR-agonist activity on mouse embryonic teratocarcinoma cells (F9) differentiated into endodermal cells. The differentiation was characterized by the secretion of the plasminogen activator into the culture medium. (A) showed an AC50 of 1 nM.

USE - As a medicinal product intended for the treatment of dermatological complaint, dermatological complaint with an inflammatory and/or immunoallergic component of the rheumatic or respiratory type, cardiovascular complaint and ophthalmological disorder; and in **cosmetic** composition for body and hair hygiene (claimed); for treating common acne, rosacea, Darier's disease, palmoplantar keratoderma, cutaneous or mucous (buccal) lichen, psoriasis, epidermal proliferation, common warts, flat warts, verruciform epidermodysplasia, dermatological disorder (e.g. bullosis and collagen disease), for preventing or curing the stigmata of epidermal or dermal atrophy induced by local or systemic corticosteroids, cicatrization disorder for preventing or repairing stretch marks, for combating disorder of sebaceous functioning (e.g. hyperseborrhoea of acne and simple seborrhoea), cancer, arthritis, alopecia and arteriosclerosis.

ADVANTAGE - The compound significantly increases the pharmaceutical and **cosmetic** properties, and decreases the side effects.

Dwg.0/0

FS CPI
FA AB; GI; DCN
MC CPI: A12-V01; B04-C03C; **B04-N04**; B06-H; B07-A01; B07-B01; B07-D02; B07-D04C; B10-A07; B10-A10; B10-B01B; B10-B02J; B10-D01;

B10-D03; B10-E02; B10-F02; B10-G02; B10-H01; B10-H02; B10-J01; B14-C02; B14-C09; B14-F01; B14-F02; B14-F07; B14-G02D; B14-H01; B14-K01; B14-L01; B14-N03; **B14-N17**; **B14-R01**; **B14-R03**; D08-B04; D08-B09

TECH UPTX: 20040128

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: Preparation of (I) (where X is -Y-Cequivalent toC-) involves:
(a) reacting phenyl derivative of formula (II) with a compound of formula Cl-CH=C(Cl)2 in presence of tetrahydrofuran to give dichloro phenyl derivative of formula (III);
(b) reacting (III) with BuLi to give alkyne derivative of formula (IV); and
(c) reacting (IV) with a compound of formula I-Ar in presence of copper chloride (CuCl2).
Preferred Compound: Bi-aromatic compound is of formula (I'), (I'') or (I''').
Ar' = phenyl (substituted at 4-position by R1 and substituted by R5) or pyridinyl (substituted by R1);
R11 - R14 = H or CH3;
n1 = 1 or 2;
W = O or S;
R'2 and R'3 = mono- or polycyclic 5-10C cycloalkyl.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The concentration of (I) is 0.001 - 5 (preferably 0.001 - 3) wt.% relative to the total weight of the composition.

L23 ANSWER 3 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-061001** [06] WPIX
DNC C2004-025025
TI New nucleic acid molecules encoding an epidermal growth factor (EGF) **protein**, useful for producing recombinant EGF in plants for **cosmetic**, medicinal, veterinarial, industrial or nutritional purposes.
DC B04 C06 D16 P13
IN KENWARD, K D; SHAH, S
PA (ALBE-N) ALBERTA RES COUNCIL INC; (ALBE-N) ALBERTA RES COUNCIL CANADA; (KENW-I) KENWARD K D; (SHAH-I) SHAH S
CYC 33
PI US 2003228612 A1 20031211 (200406)* 40 C12Q001-68 <--
CA 2427190 A1 20031030 (200410) EN C12N015-62
EP 1364966 A2 20031126 (200410) EN C07K014-485 <--
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
ADT US 2003228612 A1 Provisional US 2002-377294P 20020430, US 2003-428339 20030430; CA 2427190 A1 CA 2003-2427190 20030429; EP 1364966 A2 EP 2003-252728 20030430
PRAI US 2002-377294P 20020430; US 2003-428339 20030430
IC ICM **C07K014-485**; C12N015-62; C12Q001-68
ICS A01H005-00; A01H005-10; A61K038-18; C07H021-04; C12N005-06; C12N005-14; C12N015-12; C12N015-18; C12N015-63; C12N015-82; C12P021-02
AB US2003228612 A UPAB: 20040624
NOVELTY - A nucleic acid molecule that encodes an epidermal growth factor (EGF) **protein** or its fragment, is new. The nucleic acid molecule comprises a KDEL sequence, a scaffold attachment region (SAR), a nucleic acid sequence encoding an affinity tag, or any of their combinations, where the fragment of EGF exhibits biological activity.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a vector comprising the above nucleic acid molecule operatively linked with a regulatory region and terminator region;
(2) a plant cell, plant seed, a plant, or its progeny, comprising the above vector;
(3) a method of producing a transgenic plant that expresses an epidermal growth factor, comprising introducing into a plant the above

nucleic acid molecule to produce one or more transformed plants, selecting from the transformed plants an EGF-expressing transformed plant, and growing the EGF-expressing transformed plant to produce the transgenic plant that expresses EGF;

(4) a method of treating a mammal in need of EGF, comprising performing the steps of the method in (3) and feeding the transgenic plant that expresses EGF to the mammal; and

(5) a method of producing EGF, comprising performing the steps of the method in (3), harvesting tissue from the transgenic plant, and extracting the EGF from the tissue.

ACTIVITY - Vulnerary; Antidiabetic. No biological data given.

MECHANISM OF ACTION - Epidermal Growth Factor.

USE - The composition and methods are useful in producing recombinant EGF in plants, which may be used in promoting new growth of epithelial cells (e.g. skin, cornea, gastrointestinal tract or lungs), in wound healing, as a mucosal protectant from oral complications resulting from head and neck radio- or chemotherapy, in treating diabetes or premature organ development, in **cosmetic** skin care products, in biological wool gathering from sheep, or as a veterinary food additive.

Dwg.0/5

FS CPI GMPI

FA AB; DCN

MC CPI: B04-A0800E; **B04-C01G**; B04-E02B; B04-E03B; B04-E04; B04-E08; B04-F0800E; B04-H06A0E; **B04-N02A0E**; B11-A; **B14-N17B**; B14-S03A; B14-S04; C04-A0800E; **C04-C01G**; C04-E02B; C04-E03B; C04-E04; C04-E08; C04-F0800E; C04-H06A0E; **C04-N02A0E**; C11-A; **C14-N17B**; C14-S03; C14-S03A; C14-S04; C14-U01; D05-C12; D05-H08; D05-H12A; D05-H12D5; D05-H12E; D05-H14B3; D05-H16B; D05-H17A2; D05-H18; D05-H19

TECH UPTX: 20040123

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Nucleic Acid: The encoded EGF has been optimized for expression in plants. The EGF is human EGF (hEGF) that is encoded by the nucleotide sequence having 179 bp (S3) fully defined in the specification, or its analogue, fragment or derivative, providing that the analogue, fragment or derivative encodes a product that exhibits EGF-biological activity, the analogue, fragment or derivative comprising at least about 60% homology with S3 as determined using BLAST, with the following parameters: Program: blastn; Database: nr; Expect 10; filter: low complexity; Alignment: pairwise; Word size: 11. In addition, the analogue, fragment or derivative hybridizes to the hEGF under stringent conditions comprising hybridization at 65 degreesC overnight in 0.5 M sodium phosphate, 7% SDS, 10 mM EDTA, salmon sperm DNA, followed by washing, for 30 minutes each, at 65 degreesC 2 x SSC, 0.1% SDS, then 1 x SSC, 0.1% SDS, and then 0.1 x SSC, 0.1% SDS. The nucleic acid molecule further comprises at least one nucleotide sequence encoding a signal sequence **peptide** operatively linked with the modified nucleotide sequence encoding the EGF. The nucleotide sequence encoding the signal sequence **peptide** is obtained from a **protein** selected from a pathogenesis-related **protein**, pathogenesis-related **protein** 1a, 1b or 1c, pathogenesis-related **protein** S, sporamin, extensin, potato **proteinase** inhibitor II, lectin, EGF, preproricin, human alpha-lactalbumin and human alpha-lactoferrin. The scaffold attachment region is selected from soybean, tobacco tomato, an Arabidopsis, and a petunia. The nucleic acid molecule is AP.EGF or AP.EGF.KDEL. The EGF is selected from hEGF, pig EGF, rat EGF, mouse EGF, cat EGF, dog EGF, and horse EGF. The EGF may be a cat EGF that is encoded by the nucleotide sequence having 155 bp (S23) fully defined in the specification, or its analogue, fragment or derivative, providing that the analogue, fragment or derivative encodes a product that exhibits EGF-biological activity, the analogue, fragment or derivative comprising at least about 70% homology with S23 as determined using BLAST, with the parameters mentioned above.

Preferred Method: Producing EGF alternatively comprises growing the plant in (2) to produce the EGF. Treating a mammal in need of EGF alternatively comprises growing the plant in (2) to produce the EGF, and feeding the plant, or its extract, to the mammal.

L23 ANSWER 4 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-060164** [06] WPIX
CR 2002-241566 [29]; 2003-466155 [44]; 2004-774954 [76]; 2004-794444 [78]
DNC C2004-024848
TI Composition useful for treating e.g. pain and neuromuscular disorders comprises a botulinum toxin light chain component or its modified form and an intracellular structure component.
DC B04
IN AOKI, K R; FERNANDEZ-SALAS, E; HERRINGTON, T; STEWARD, L E
PA (ALLR) ALLERGAN SALES INC
CYC 1
PI US 2003219462 A1 20031127 (200406)* 61 A61K039-08 <--
ADT US 2003219462 A1 CIP of US 2000-620840 20000721, CIP of US 2001-910346 20010720, US 2002-163106 20020604
PRAI US 2002-163106 20020604; US 2000-620840 20000721; US 2001-910346 20010720
IC ICM A61K039-08
ICS C12N001-00
AB US2003219462 A UPAB: 20041206
NOVELTY - An isolated composition (C1) comprises a botulinum toxin light chain component (I) or its modified form and an intracellular structure component (II). (II) interacts with (I) to facilitate substrate proteolysis within a cell.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preparation of (C1) involving interacting (I) with (II) to facilitate proteolysis of a substrate within a cell; and isolating the composition.

ACTIVITY - Analgesic; Anticonvulsant; CNS Gen.; Dermatological; Neuroprotective; Respiratory-Gen.; Antiasthmatic. A patient (age 39) experiencing pain subsequent to spinal cord injury was treated by intrathecal administration, with the modified neurotoxin. The modified neurotoxin was botulinum type E comprising a leucine-based motif. Within 1 - 7 days after the modified neurotoxin administration, the patient's pain was subsequently reduced. The pain alleviation persists for up to 27 months.

MECHANISM OF ACTION - Exocytosis of neurotransmitter inhibitor.

USE - For treating pain, muscular spasm, neuromuscular disorders (e.g. spasmodic dysphonia, cervical dystonia, eyelid disorder, cerebral palsy, voice disorders, tremors, anal tissues and neurogenic bladder); as **cosmetics** to treat brow furrows and reducing wrinkles; and also for treating secretor disorders, autonomic nervous disorders, respiratory diseases (e.g. asthma and obstructive pulmonary disease) and headache.

ADVANTAGE - The composition exhibits enhanced period of biological persistence, and modified neurotoxins with reduced biological persistence and/or biological activity. The structural component interacts with the light chain component to facilitate substrate proteolysis within a cell, thus the composition can have utility for research, diagnostic and therapeutic purposes.

Dwg.0/37
FS CPI
FA AB; DCN
MC CPI: **B04-N03**; **B04-N0300E**; B14-C01; B14-J01A; B14-J05A; B14-J05D; B14-J07; B14-K01; **B14-N17**; **B14-R01**
TECH UPTX: 20040123
TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: (I) is a botulinum type A, B, C, D, E, F, G, their portions or modified forms (preferably type A or its portion), or a C-terminal portion of the botulinum toxin light chain. (II) is a cell membrane (preferably a plasma membrane). (II) further comprises a **protein** complex (100 - 1000 kDa, preferably a adapter **protein**). The **protein** complex includes (I) or the substrate (preferably an intracellular component involved in exocytosis e.g. SNAP-25).
Preferred Composition: (C1) comprises a type A toxin light chain component and a plasma membrane or its portion (preferably an mammalian cell) or type B toxin light chain component and a cytoplasmic component of a mammalian cell.

L23 ANSWER 5 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-898494** [82] WPIX
CR 2000-052778 [04]; 2002-730928 [79]
DNC C2003-255329
TI Stabilized formulation containing **protein** or nucleic acid crystal, useful e.g. in pharmaceutical, diagnostic and **cosmetic** compositions, optionally including excipient.
DC A96 A97 B04 C07 D13 D16 D21
IN KHALAF, N K; MARGOLIN, A L; RAKESTRAW, S L; SHENOY, B C; ST CLAIR, N L
PA (ALTU-N) ALTUS BIOLOGICS INC
CYC 1
PI US 2003175239 A1 20030918 (200382)* 65 A61K038-22 <--
ADT US 2003175239 A1 Provisional US 1997-70274P 19971231, Provisional US 1998-83148P 19980427, Cont of US 1998-224475 19981231, Cont of WO 1999-US9099 19990427, Cont of US 1999-374132 19990810, US 2003-383266 20030305
FDT US 2003175239 A1 Cont of US 6541606
PRAI US 2003-383266 20030305; US 1997-70274P 19971231;
US 1998-83148P 19980427; US 1998-224475 19981231;
WO 1999-US9099 19990427; US 1999-374132 19990810
IC ICM A61K038-22
ICS A61K038-17; A61K038-18; A61K038-19; A61K038-20; A61K038-21; A61K039-00; A61K039-395; C12N009-02; C12N009-20; C12N009-80
AB US2003175239 A UPAB: 20031223
NOVELTY - Stabilized formulation (A) comprising a **protein** crystal (PC) and at least one ingredient (I), is new.

DETAILED DESCRIPTION - Stabilized formulation (A) comprising a **protein** crystal (PC) and at least one ingredient (I) which has:

(a) at least 60-fold greater shelf-life at 50 deg. C than the soluble form of the **protein** (II) stored in solution;

(b) at least 59-fold greater shelf-life at 40 deg. C and 75% humidity than the non-formulated form of PC;

(c) at least 60% greater shelf-life at 50 deg. C than the non-formulated form of PC;

(d) loses less than 20% of alpha -helical structure after 4 days at 50 deg. C where the soluble form of (II) loses more than 50% after 6 hours at 50 deg. C (as measured by Fourier-transform infra-red spectrometry);

(e) a combination of both (d) and (a), where shelf-life is measured from the half-life; or

(f) (II) has molecular weight over 10 kD.

INDEPENDENT CLAIMS are also included for the following:

(1) formulation containing a nucleic acid crystal (NAC) and at least one (I);

(2) composition for release of a **protein** (II) or nucleic acid (NA) comprising (A) or (B) encapsulated within a matrix of at least one polymeric carrier;

(3) composition containing PC encapsulated in a matrix of at least one polymeric carrier;

(4) producing microspheres by encapsulation of PC while maintaining their crystallinity;

(5) **protein** delivery system comprising the composition of (3);

(6) method for producing dried, non-crosslinked PC or NAC; and

(7) dried, non-crosslinked PC and NAC.

ACTIVITY - Virucide; Anti-HIV; Antibacterial; Parasiticide; Cytostatic; Antiallergic. No details of tests for these activities are given.

MECHANISM OF ACTION - Vaccine; **Protein** replacement; Gene therapy.

USE - (A), and similar compositions containing nucleic acid crystals, are useful in food, feed, pharmaceutical, diagnostic, **cosmetic** and personal-care products, e.g. for controlled release of enzymes; a wide range of therapeutic **proteins**; and vaccine antigens (viral, bacterial, parasitic or tumor antigens; allergens or toxins).

ADVANTAGE - **Protein** and nucleic acid crystals have improved

stability, relative to solutions, and when formulated with a polymeric carrier, provide sustained release.
Dwg.0/24
FS CPI
FA AB; DCN
MC CPI: A12-V01; A12-V03C2; A12-V04; B04-B04C2; B04-C03; B04-E03F; B04-E07; B04-H02; B04-H19; B04-H21; **B04-N04**; B11-C08G; B12-M10A; B14-S03; C04-B04C2; C04-C03; C04-E03F; C04-E07; C04-H02; C04-H19; C04-H21; **C04-N04**; C11-C08G; C12-M10A; C14-S03; D03-G; D05-C12; D05-H07; D05-H12A; D05-H12D6; D08-B
TECH UPTX: 20031223
TECHNOLOGY FOCUS - BIOLOGY - Preferred Formulations: These are pharmaceuticals (including vaccines), food, feed, veterinary, diagnostic, **cosmetic** or personal care products. Preferred Materials: The **protein** is (i) an enzyme, best lipase (particularly from Candida rugosa or Pseudomonas cepacia), glucose oxidase or penicillin acylase; (ii) a therapeutic **protein**, e.g. (many claimed) an antibody, growth hormone, integrin, chemokine, interleukin, complement or rhesus factors, or fibrinogen; or (iii) a vaccine antigen, e.g. from HIV-1 or herpes simplex virus envelope **proteins**, hepatitis surface antigen, parasite, bacterial or tumor antigen, allergen or toxin. (I) is an excipient, specifically sucrose, trehalose, lactitol, gelatine or hydroxypropyl-beta-cyclodextrin. In (B), the nucleic acid is DNA (especially coding a ribozyme or any of the **proteins** described above) or RNA, particularly a ribozyme. In the composition of (3), PC comprises a glyco- (or otherwise modified) **protein**, enzyme, hormone, antibody or cytokine (e.g. insulin, erythropoietin, factor VIII or tetanus/diphtheria toxoid), and PC have largest dimension 0.01-500, particularly 50-100, microns, especially microcrystals, optionally crosslinked with a bi- or multi- functional reagent. These compositions provide sustained release. Preparation: In method (4), PC are suspended in a solution, in organic solvent, of the polymeric carrier, then the suspension of coated crystals transferred to aqueous solution containing an emulsifier. The carrier is hardened by evaporation of the organic solvent. Method (6) comprises forming PC or NAC; washing them with organic solvent or liquid polymer; removing organic solvent and drying. Alternatively, the crystals are formed; washed and suspended in organic solvent or liquid polymer. Drying is particularly in a flow of gas.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Suitable crosslinking agents are glutaraldehyde; succinaldehyde; octanedialdehyde and glyoxal.

TECHNOLOGY FOCUS - POLYMERS - Suitable excipients are (methoxy)poly(ethylene glycol). About 40 polymers suitable as carrier are claimed, e.g. poly(acrylic acid); polyester; cellulose (or derivatives); alginate; sulfated polysaccharides, or, most preferred, poly(lactic-co-glycolic) acid or albumen. Optionally they are emulsified with poly(vinyl alcohol).

L23 ANSWER 6 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-898099** [82] WPIX
CR 2003-247999 [24]; 2003-248000 [24]; 2003-457592 [43]; 2005-151685 [16]
DNC C2003-255135
TI New neural thread **protein** or its variants, useful for treating tumors and other conditions requiring the removal or destruction of cells (e.g. prostatic hyperplasia, psoriasis, eczema, hemorrhoids or atherosclerosis).
DC B04 D16
IN AVERBACK, P; GEMMELL, J
PA (AVER-I) AVERBACK P; (GEMM-I) GEMMELL J
CYC 1
PI US 2003166569 A1 20030904 (200382)* 32 A61K038-10 <--
ADT US 2003166569 A1 Provisional US 2001-331477P 20011116, US 2002-294891 20021115
PRAI US 2001-331477P 20011116; US 2002-294891 20021115
IC ICM A61K038-10

ICS C07K007-08
AB US2003166569 A UPAB: 20050308
NOVELTY - A **peptide**, or its homologue, derivative, fragment, variant or mimetic, comprising at least one neural thread **protein** (NTP) **peptide** comprising 41 defined amino acid sequences given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a nucleic acid encoding an amino acid sequence corresponding to the above **peptide** and its homologues, fragments and variants;

(2) a composition comprising one or more **peptides** or nucleic acids cited above, and a carrier;

(3) a method of treating a condition in a mammal requiring removal or destruction of cells, comprising administering to the mammal an amount of the **peptide** cited above; and

(4) a method of preventing or inhibiting the stenosis, occlusion or blockage of a stent, comprising coating the stent with an amount of the above **peptide**.

ACTIVITY - Cytostatic; Antipsoriatic; Dermatological; Vasotropic; Antiarteriosclerotic; Antiinflammatory; Immunosuppressive; Vulnerary; Antibacterial; Virucide; Antiparasitic; Antidote.

No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The composition and methods are useful in treating tumors and other conditions requiring the removal or destruction of cells (e.g. prostatic hyperplasia, psoriasis, eczema, hemorrhoids or atherosclerosis). These may also be used in treating inflammatory diseases, autoimmune diseases, metabolic diseases, hereditary/genetic diseases, traumatic diseases or physical injuries, nutritional deficiency diseases, infectious diseases, amyloid diseases, storage diseases, congenital malformation, enzyme deficiency diseases, poisoning, intoxication, environmental diseases, radiation diseases, endocrine diseases, degenerative diseases or mechanical diseases.

Dwg.0/7
FS CPI
FA AB; DCN
MC CPI: **B04-C01G**; B04-E03F; **B04-N02A0E**; B14-A01; B14-A02; B14-B02; B14-C03; B14-F02; B14-F07; B14-G02; B14-H01; B14-M01; **B14-N17B**; **B14-N17C**; D05-H10; D05-H12A
TECH UPTX: 20031223
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred **Peptide**: The **peptide** comprises an amino acid in a reverse-D order based on the above amino acid sequences. The **peptide** has at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the **peptide**. It may also comprise at least 2 repetitions of the **peptide** sequences. In addition, the **peptide** is fused, conjugated, linked or bound to a molecule selected from an antibody, fragment of an antibody or an antibody-like molecule having a higher affinity for binding to a tumor or other target than binding to other cells. The **peptide** may also be a part of a single new cloned recombinant molecule cited above.

Preferred Method: The method of treating a condition in a mammal requiring removal or destruction of cells is carried out on the mammal before, during or after treatment of the mammal. The treatment is selected from surgical excision, transplantation, grafting, chemotherapy, immunotherapy, vaccination, thermal or electrical ablation, cryotherapy, laser therapy, phototherapy, gene therapy and radiation. The condition is a benign or malignant tumor of a tissue; a hyperplasia, hypertrophy or overgrowth of a tissue; virally, bacterially or parasitically altered tissue; or a malformation of a tissue. The tissue is selected from lung, breast, stomach, pancreas, prostate, bladder, bone, ovary, skin, kidney, sinus, colon, intestine, rectum, esophagus, heart, spleen, salivary gland, blood, brain and its coverings, spinal cord and its coverings, muscle, connective tissue, adrenal, parathyroid, thyroid, uterus, testis, pituitary, reproductive organs, liver, gallbladder, eye, ear, nose, throat, tonsils, mouth, and lymph nodes and lymphoid system. In particular, the condition

is tonsillar hypertrophy, prostatic hyperplasia, psoriasis, eczema, dermatosis, **cosmetic** modification of a tissue, vascular disease, hemorrhoids or varicose veins. The vascular disease may include atherosclerosis or arteriosclerosis. In addition, the condition may be an inflammatory disease, autoimmune disease, metabolic disease, hereditary/genetic disease, traumatic disease or physical injury, nutritional deficiency disease, infectious disease, amyloid disease, fibrosis disease, storage disease, congenital malformation, enzyme deficiency disease, poisoning, intoxication, environmental disease, radiation disease, endocrine disease, degenerative disease or mechanical disease. The condition may also be stenosis, restenosis, occlusion or blockage of an artery or of a stent placed or implanted in an artery.

L23 ANSWER 7 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-897031** [82] WPIX
CR 2000-303363 [26]; 2000-376273 [32]; 2001-281805 [29]; 2002-425895 [45]; 2003-183864 [18]; 2003-708770 [67]; 2003-767190 [72]; 2004-190670 [18]; 2004-191100 [18]; 2004-327673 [30]; 2004-478988 [45]; 2004-579872 [56]
DNC C2003-254613
TI Stable bioadhesive nanoparticulate composition for adsorbing to skin as **cosmetics** and cleansers, comprises active agent particles having preset average particle size, adsorbed with cationic surface stabilizer.
DC A96 A97 B07 C07 D22
IN BOSCH, H W; COOPER, E R; MCGURK, S L
PA (ELAN-N) ELAN PHARMA INT LTD
CYC 1
PI US 2003108611 A1 20030612 (200382)* 50 A61K049-04 <--
ADT US 2003108611 A1 US 2001-4808 20011207
PRAI US 2001-4808 20011207
IC ICM A61K049-04
ICS A01N025-12; A01N065-00; **A61K007-06**; A61K009-14; A61K035-78; A61K051-00
AB US2003108611 A UPAB: 20041109
NOVELTY - A stable bioadhesive nanoparticulate composition (NPC) comprises crystalline, semi-crystalline and/or amorphous active agent particles (AAP), adsorbed with at least one cationic surface stabilizer (CSS). AAP have an average particle size of less than 4000 nm. NPC adsorbs to a biological surface.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) preparation of NPC by contacting AAP, with CSS; and
(2) application of NPC to a biological surface or plant tissue.

ACTIVITY - Fertilizer; Pesticide; Herbicide; Dermatological

MECHANISM OF ACTION - None given.

USE - For adsorbing to biological surface selected from e.g. insect, teeth, bone, nails, chitin, feathers, scales, mucous, skin, hair and plant tissue (claimed). They may also be used as **cosmetics**, perfumes, shampoos, cleansers, moisturizer, deodorants, topical creams, ointments, nail polish, or hair **cosmetic** compositions, as well as being applied to plant tissue as e.g. fertilizers, pesticides, or herbicides..

ADVANTAGE - CSS prevent aggregation of the nanoparticles and increase bioadhesion of the nanoparticles to the biological substrates. NPC are stable, effective and have superior adhesion properties to biological surfaces.

Dwg.0/26
FS CPI
FA AB; DCN
MC CPI: A12-V01; A12-V03A; B02-Z; B03-L; B04-B01C; B04-B04D; B04-C03; B04-H03; B04-J01; B04-J02; **B04-N04**; B05-A04; B10-A22; B11-C09; B12-M05; B14-A01; B14-A02; B14-A04; B14-B01; B14-B03; B14-B04B; B14-C01; B14-C03; B14-D07C; B14-E05; B14-E11; B14-E12; B14-F01; B14-F02; B14-F04; B14-F06; B14-F08; B14-G01; B14-G02; B14-H01; B14-J01; B14-J02; B14-J05A; B14-J07; B14-K01; B14-L09; B14-N08; B14-N11; **B14-N17D**; **B14-R01**; B14-S04; C02-Z; C03-L; C04-B04D; C04-H03; C04-J01; C04-J02; **C04-N04**; C05-A04; C11-C09; C12-M05; C14-A01; C14-A02; C14-A04; C14-A06; C14-B01; C14-B03; C14-B04B; C14-C01; C14-C03; C14-D07C; C14-E05;

C14-E11; C14-E12; C14-F01; C14-F02; C14-F04; C14-F06; C14-F08;
C14-G01; C14-G02; C14-H01; C14-J01; C14-J02; C14-J05A; C14-J07;
C14-K01; C14-L09; C14-N08; C14-N11; **C14-N17D**;
C14-R01; C14-S04; C14-T; C14-U01; C14-V01; C14-V02; D08-B

TECH UPTX: 20031223

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: AAP is water-soluble active agent or poorly water-soluble active agent. The active agent is drug, vitamin, herb, **cosmetic**-, coloring-, flavoring-, fragrance-, sunscreen, moisturizer, deodorant, food product, hair conditioning-, hair dying-, hair spraying-, hair **cosmetic**-, depilatory-agent, hair cleanser, insecticide, fertilizer, pesticide, herbicide, germicide or plant growth regulating agent.

The drug is selected from e.g. **proteins**, **peptides**, nutraceuticals, anti-obesity agents, corticosteroids, elastase inhibitors, analgesics, antifungals, oncology therapies, antiemetics, analgesics, cardiovascular agents, antiinflammatory agents, antihelmintics, antiarrhythmics, antibiotics, anticoagulants, antidepressants, antidiabetics, antiepileptics, antihistamines, antihypertensives, antimuscarinics, antimycobacterial agents, antineoplastic agents, immunosuppressants, antithyroid agents, antivirals, anxiolytics, astringents, beta-adrenoreceptor blockers, blood products and substitutes, cardiac inotropic agents, contrast media, antitussives, diagnostic imaging agents, diuretics, dopaminergics, haemostatics, immunological agents, lipid regulators, muscle relaxants, parasympathomimetics, parathyroid calcitonin and biphosphonates, prostaglandins, radio-pharmaceuticals, sex hormones, anti-allergic agents, stimulants and anoretics, sympathomimetics, thyroid agents, vasodilators, xanthines, acne medication, alpha-hydroxy formulations, cystic fibrosis therapies, asthma therapies, emphysema therapies, respiratory distress syndrome therapies, chronic bronchitis therapies, chronic obstructive pulmonary disease therapies, organ-transplant rejection therapies, therapies for tuberculosis and other infections of the lung, and respiratory illness therapies associated with AIDS.

CSS is a polymer, biopolymer, polysaccharide, cellulose, alginate, non-polymeric compound or phospholipid. CSS is benzalkonium chloride, polymethyl methacrylate trimethyl ammonium bromide, polyvinyl pyrrolidone-2-dimethylaminoethyl methacrylate, dimethyl sulfate or hexadecyltrimethyl ammonium bromide. NPC further comprises excipients.

Preferred Properties: AAP have average particle size of less than 3500 nm, preferably less than 50 nm. AAP are in liquid state or at near room temperature.

Preferred Conditions: NPC comprising AAP in crystalline state, adsorbed on CSS, comprises non-polymeric compound except benzalkonium chloride. But NPC includes benzalkonium chloride as secondary CSS.

Preferred Amount: The composition contains (in wt./wt.%) AAP (99.99-0) and CSS (0.001-99.99).

Preferred Form: NPC is in the form of dry powder.

Preferred Process: AAP is dispersed in a liquid medium in which they are poorly soluble. Alternately, the active agent is dissolved or dispersed in liquid droplets of a poorly water-soluble liquid. CSS is adsorbed on the surface of CSS liquid droplets. The liquid droplets comprising active agent are dispersed in water. The particle size of active agent is reduced by wet milling, controlled precipitation or homogenization. The particles are combined with an emulsifying agent and a liquid non-solvent. The resulting mixture is emulsified (using homogenizer, high-shear mixer, rotor-stator type device or microfluidizer), to produce an emulsion of droplets of active agent. The stabilizer is added to a mixture of active agent particles, emulsifying agent and liquid non-solvent prior to or during emulsification. Preferably, particle size of water-soluble active agent in liquid non-solvent is reduced, non-solvent is removed, water-soluble active agent is encapsulated in water-insoluble coating, the encapsulated water-soluble active agent is dispersed in an aqueous medium, and CSS is added.

Preferred Dispersion Medium: The dispersion medium is water, mineral oil, vegetable oil or hydrocarbon.

L23 ANSWER 8 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-875898** [81] WPIX
CR 2002-617722 [66]
DNC C2003-247340
TI New alpha-bungarotoxin **polypeptide** that selectively binds nicotinic acetylcholine receptors, useful for treating aberrant muscle contraction, and other conditions having neuromuscular components.
DC B04 D16
IN HAWROT, E
PA (UYBR-N) UNIV BROWN RES FOUND
CYC 1
PI US 2003208042 A1 20031106 (200381)* 26 A61K038-17 <--
ADT US 2003208042 A1 Provisional US 2000-184518P 20000224, Div ex US 2001-819058 20010223, US 2003-447529 20030529
PRAI US 2000-184518P 20000224; US 2001-819058 20010223; US 2003-447529 20030529
IC ICM A61K038-17
ICS **C07K014-705**
AB US2003208042 A UPAB: 20031216
NOVELTY - An isolated **polypeptide** that selectively binds nicotinic acetylcholine receptors with a non-native specificity, comprising a sequence of 74 amino acids (P1), fully defined in the specification having at least one amino acid substitution or its fragment, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a pharmaceutical composition comprising the isolated **polypeptide** or an isolated native alpha -bungarotoxin, and a carrier.
ACTIVITY - Dermatological; Vulnerary; Neuroprotective; Relaxant; Antiinflammatory. No biological data give.
MECHANISM OF ACTION - Gene therapy.
USE - The **polypeptide** and composition are useful for treating aberrant muscle contraction, inter alia in the **cosmetic** treatment of facial wrinkles, in strabismus, blepharospasm, various dystonias, and other conditions having neuromuscular components.
Dwg.0/7
FS CPI
FA AB; DCN
MC CPI: **B04-C01G**; **B04-N04A**; B14-J01; B14-J05; B14-J05A; B14-N03; **B14-N17**; **B14-N17B**; **B14-R01**; B14-S03A; D05-C11; D08-B09A1; D08-B09A3
TECH UPTX: 20031216
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred **Polypeptide**: The **polypeptide** comprises at least one amino acid substitution of Pro at amino acid 38 and/or Gln at amino acid 42 of P1.

L23 ANSWER 13 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-585252** [55] WPIX
CR 2005-074032 [08]
DNC C2003-158367
TI Composition for rejuvenating skin, treating sun burns and for promoting hair growth, comprises cell growth enhancers, nutrients, extra-cellular matrix **proteins**, stimulators and penetrations enhancers.
DC A25 A96 B04 B05 D21 D22
IN JAIN, D
PA (JAIN-I) JAIN D
CYC 1
PI US 2003068297 A1 20030410 (200355)* 13 A61K038-19 <--
ADT US 2003068297 A1 CIP of US 2001-313306 20010818, CIP of US 2001-313307 20010818, CIP of US 2001-313313 20010818, CIP of US 2001-313314 20010818, US 2002-222949 20020816
PRAI US 2002-222949 20020816; US 2001-313306 20010818; US 2001-313307 20010818; US 2001-313313 20010818; US 2001-313314 20010818
IC ICM A61K038-19
ICS A61K031-557; A61K031-715; A61K031-728; A61K038-18
AB US2003068297 A UPAB: 20050202

NOVELTY - Skin rejuvenating composition comprises cell growth enhancers, which increases growth rate of skin cells; nutrients which supports log phase growth of skin cells; extra-cellular matrix **proteins**; stimulator to increases extra-cellular matrix **protein** production; and penetration enhancers, which improves penetration of cell growth enhancers, nutrients, extra-cellular matrix **proteins** and stimulators.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) method for repairing mammalian skin, which involves permeating the above-mentioned composition into skin; and

(2) method for increasing hair growth on scalp, which involves permeating the above mentioned composition to the scalp.

ACTIVITY - Endocrine; Vulnerary; Dermatological.

30 men of 18-40 years old diagnosed with alopecia androgenetica, were assigned to use a composition containing cell growth enhancers, nutrients, extra-cellular matrix **proteins**, stimulators and penetration enhancers, at the clipped site for 6 months. After 6 months the increase in weight of hairs at the clipped site when evaluated was 5-25 %, hence concluded that the composition had excellent hair growth promoting effect.

MECHANISM OF ACTION - None given.

USE - For rejuvenating skin by reducing fine lines and wrinkles, treating sun burns or topical abrasions and for promoting hair growth. Also used for coating medical or surgical devices such as sutures, implants, hemostatic plugs, dressings, gauzes and pads (claimed).

ADVANTAGE - The composition effectively repairs and rejuvenates mammalian skin, hence significantly reduces fine lines and wrinkles (to about 10 % or more) on skin and prevents aging of skin. The composition effectively promotes healing of wounds such as sun burns, cuts, scrapes and abrasions; facial peels; and **cosmetic** surgery procedures. The composition promotes hair growth (from hair follicles by 10 % or more) and prevents alopecia when applied to scalp. The composition having excellent moisturizing effect, improves skin texture and enables to maintain skin in healthy and youthful condition.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A12-V04A; A12-V04C; B03-E; B03-L; B04-A06; B04-B01B; B04-B01C; **B04-C01**; B04-D01; B04-H04A; B04-H04C; B04-H0600E; B04-H06A; B04-H06B; B04-H07; B04-H20A; B04-H20B; B04-H21; B04-J01; **B04-N02**; **B04-N05**; **B04-N06**; B05-A01B; B05-A03A; B05-C02; B05-C05; B07-A02; B10-A07; B10-C04; **B14-N17A**; **B14-N17C**; **B14-R02**; D08-B03; D08-B09A1; D08-B09A3

TECH UPTX: 20030828

TECHNOLOGY FOCUS - BIOLOGY - Preferred Ingredients: The cell growth enhancer is selected from epidermal growth factor (EGF), fibroblast growth factor (FGF), insulin-like growth factor (IGF), granulocyte colony stimulating growth factor (GCSF), granulocyte macrophage Colony-stimulating growth factor (GMCSF), platelet-derived growth factor (PDGF), keratinocyte growth factor (KGF), tissue growth factor-alpha (TGF-alpha), vascular endothelial growth factor (VEGF), erythropoietin, hematopoietic, growth hormone, prostaglandin, cytokines, regulatory factors, angiogenic factors, hyaluronic acid and fibronectin, preferably EGF, FGF, TGF-alpha, hyaluronic acid, fibronectin, hepatopoietin, erythropoietin, growth hormone, prostaglandin, VEGF, vitronectin, laminin and tenasin. The nutrient is selected from monosaccharides, disaccharides, carbohydrates, essential amino acids, non-essential amino acids, salts, vitamins, minerals, trace metals, nucleosides, purines, pyrimidines, glutathione, **peptides**, peptones, **lipoproteins** and fatty acids, preferably D-glucose, aminoacids, sodium chloride, sodium pyruvate, vitamin B12, choline chloride, inositol, calcium chloride, magnesium sulfate, ferric nitrate, ferrous sulfate, zinc sulfate, cupric sulfate, hypoxanthine, linoleic acid, and lipoic acid, oleic acid, collagen, insulin and transferrin. The extra-cellular matrix **protein** is selected from fibrous **proteins**, adhesion

proteins, glucosamine glycans, proteoglycans and integrins, preferably collagen, elastin, transferrin and ascorbate. The stimulator is selected from tissue growth factor-beta and adhesion proteins. The penetration enhancer is selected from mineral oil, fatty alcohols, detergents, alcohols, glycols, lipoic acid, transdermal delivery vehicle or transdermal delivery device, preferably propylene alcohols, fatty alcohols, Tween 80 (polyoxyethylene sorbitan mono oleate), butylene glycol, mineral oil, and TAT protein sequence (Thr-Ala-Thr), attached to a protein component.

L23 ANSWER 14 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-554827** [52] WPIX
CR 1996-030327 [03]; 1996-371124 [37]; 1997-280664 [25]; 2000-194855 [17]; 2002-470225 [50]; 2004-340128 [31]
DNC C2003-149806
TI Preparation of fractionated cartilage extract useful for treating skin disease involves fractionating a crude cartilage extract such that water-soluble components having higher molecular weight are separated.
DC B04
IN BELIVEAU, R; BRAZEAU, P; DUPONT, E; JUNEAU, C; MAES, D H; MARENUS, K
PA (AETE-N) AETERNA LAB INC; (AETE-N) LES LAB AETERNA INC
CYC 1
PI US 2003013858 A1 20030116 (200352)* 60 C07K001-00 <--
US 6635285 B2 20031021 (200370) A61K035-34
ADT US 2003013858 A1 CIP of US 1994-234019 19940428, CIP of US 1995-384555 19950203, CIP of US 1995-550003 19951030, CIP of US 1996-693535 19960808, Div ex US 2000-504065 20000215, US 2002-68950 20020207; US 6635285 B2 CIP of US 1994-234019 19940428, CIP of US 1995-384555 19950203, CIP of US 1995-550003 19951030, CIP of US 1996-693535 19960808, Div ex US 2000-504065 20000215, US 2002-68950 20020207
FDT US 2003013858 A1 CIP of US 5618925, CIP of US 6025334, CIP of US 6028118, Div ex US 6380366; US 6635285 B2 CIP of US 5618925, CIP of US 6025334, CIP of US 6028118, Div ex US 6380366
PRAI US 2000-504065 20000215; US 1994-234019 19940428;
US 1995-384555 19950203; US 1995-550003 19951030;
US 1996-693535 19960808; US 2002-68950 20020207
IC ICM A61K035-34; C07K001-00
ICS A23J001-00; **C07K014-00**; C07K016-00; C07K017-00
AB US2003013858 A UPAB: 20040514
NOVELTY - Preparation of a fractionated cartilage extract (E) comprising water-soluble components (a) having a molecular weight of less than 500 kDa is new.

DETAILED DESCRIPTION - Preparation of a fractionated cartilage extract (E) comprising water-soluble components (a) having a molecular weight of less than 500 kDa involves fractionating a crude cartilage extract comprising (a) obtained from cartilage material (m1) such that major portion of (a) having a molecular weight of greater than 500 kDa are separated from major portion of (a) having a molecular weight of less than 500 kDa to form a first fractionated cartilage extract (E1).

INDEPENDENT CLAIMS are included for the following:

(a) a composition (C1) comprising (E); and

(b) a matrix metalloprotease inhibitor isolated from shark cartilage having an apparent molecular weight of 31 kDa and which cross-reacts with anti-TIMP antibodies.

ACTIVITY - Dermatological; Antitumor; Ophthalmological; Virucide; Antiinflammatory; Uropathic; Antipruritic; Vulnerary; Antidiabetic; Endocrine; Neuroprotective; Respiratory; Gastrointestinal; Antiseborrheic; Vasotropic; Immunosuppressive.

20 Panelist having visible but not excessive telangiectasia on legs, were divided in two groups. Group A was provided with a liquid cartilage extract containing cream and Group B was provided with a vehicle cream alone to be used on the full legs, twice a day for 3 months. A fiber optic microscope was used to obtain images of 2 - 4 sites of the legs showing varicose veins. The images were analyzed and integrated optical density (IOD) was calculated. The results indicated that there was 21 %, 17 % and 26 % decrease in IOD after 4, 8 and 12 weeks of use. The control vehicle

exhibited a background improvement of 5 %, 0 % and 0 % after 4, 8 and 12 weeks respectively.

MECHANISM OF ACTION - Matrix metalloprotease (MMP-2, MMP-9 and MMP-12) inhibitor; Endothelial cell proliferation inhibitor; Cancer cell proliferation inhibitor; Activated-keratinocyte differentiation inhibitor; Tumor growth inhibitor; PKC-mediated cellular event antagonist.

An in vivo assay of DMBA (9,10-dimethyl-1,2-benzanthracene) induced rat mammary breast cancer model was performed to evaluate tumor growth inhibition as follows: 440 Female Sprague-Dawley rats were administered with DMBA (20 mg). 240 rats developed a mammary breast cancer and were divided into two groups and further divided into 4 sub-groups each. In first group rats were given a daily dose of increasing concentrations of the solid extracts in 3 ml of water for 8 weeks, the control group received same volume of water. In second group, the same dosage was given for 10 weeks. Only one subgroup of the second group was treated with a 3000 mg/kg/day of the solid and liquid extract (3 ml) was also given in intraperitoneal (i.p.) injection of a smaller dose of the liquid extract (8 mg of **protein** in water (1 ml)). The first group of rats had tumors of average diameter of 0.9 cm and the second group had that of diameter of 0.6 cm. The % tumor growth inhibition for first group was 0/2/4/14/15 for 0(control)/500/1000/3000/5000 mg/kg/day and for second group was 0/12/18/20 for 0(control)/3000/3000+3 ml liquid extract/3000+ 3 ml liquid extract+ 1 ml liquid extract i.p. mg/kg/day.

USE - In an ophthalmic or **cosmetic** composition for treating a skin disease or disorder having an etiology related to angiogenesis e.g. telangiectasia of varicose veins and of spider veins; periorbital dark circles; redness caused by rosacea; for treating warts in a mammalian skin, a papulosquamous skin disease or disorder e.g. Reiter's syndrome, pityriasis rosea, lichen planus, pityriasis rubra pilaris, secondary syphilis, mycosis fungoides and ichthyosiform eruptions; for promoting wound repair in a mammal; for treating an inflammatory or angiogenic ophthalmic disease or disorder in a mammal e.g. corneal neovascularization, corneal infection, neovascular glaucoma, macular degeneration and diabetic retinopathy; for treating hypertrophic scar, alopecia, multiple sclerosis, fibrosis, inflammatory bowel disease, scleroderma, vasoconstrictive disease, herpes virus keratitis and organ graft rejection; for treating a disease or disorder having an etiology related to any one of tumor proliferation, angiogenesis, metalloprotease activity and inflammation e.g. a disease or disorder affecting skin or mucosae, for reducing inflammation in mammalian skin caused by a chemical irritant, a physical abrasion, UV radiation, an allergen or an infectious agent; for inducing a decrease in tumor size; enhancing skin barrier function; regulating wrinkles and atrophy; retarding premature aging; soothing irritation and decreasing the expression of eczema or acne in mammalian skin (all claimed).

ADVANTAGE - The process is easy to perform and efficient in producing (E), which possesses a multiplicity of activities such as anti-angiogenic and anti-tumor activities and is recovered in good yields. Also (E) is non-toxic to normal cells and is effective in a large variety of diseases or conditions.

Dwg.32/32

FS CPI

FA AB; GI; DCN

MC CPI: B04-B04M; B12-M02; B12-M03; B12-M11; B14-A02; B14-A04; B14-C03; B14-E10C; B14-H01B; B14-N03; **B14-N17B**; **B14-N17C**

TECH UPTX: 20030813

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Process: The process further involves removing a major portion of water present in (e1); second fractionating (E1) to remove a major portion of (a) having a molecular weight of less than 0.1 kDa, 1 kDa or 10 kDa to form a second fractionated cartilage extract (E2) comprising (a) having a molecular weight of 0.1 - 500 kDa, 1 - 500 kDa or 10 - 500 kDa; and third fractionating (E2) on an anion exchange chromatography medium (preferably Mono-Q) to recover a third fractionated extract (E3) which elutes in a NaCl concentration gradient (0.8 - 1M) and has antiangiogenic activity to form (E). The first and second fractionating steps are conducted concurrently or sequentially.

The first fractionating step uses at least one of a first separation medium having a nominal molecular weight cutoff (NMWCO) of 500 kDa, a first chromatographic medium and a first electrophoretic medium. The second fractionating step uses a second separation medium having NMWCO of 0.1 kDa or 1 kDa, a second chromatographic medium and a second electrophoretic medium. The first and second fractionating steps are a filtration steps and the first and second separation mediums are a filtration membranes. The process additionally involves an earlier steps of: (i) reducing the particle size of (m1) mechanically to form a particle size-reduced cartilage solid (s); (ii) treating (s) with an aqueous solution to extract (a) from (s); and (iii) separating (s) from the aqueous solution by filtration or centrifugation. Both the steps (i) and (ii) are conducted in the same aqueous solution. The step (ii) is conducted during or after the step (i). The step (i) uses homogenization of (m1).

Preferred Composition: The composition further comprises an antioxidant, an anti-inflammatory agent, an anti-irritant, a keratinolytic agent, a surface active agent, a preservative, a stabilizer, a synthetic polymer, a buffer, a cream base, an ointment base or salt.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: (s) has an average particle size of less than 500 micro m. (m1) is shark cartilage. (a) comprise a **protein.** The aqueous solution is non-denaturing aqueous solution.

L23 ANSWER 15 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-503360** [47] WPIX
CR 2003-073922 [07]
DNC C2003-134432
TI New hair follicle growth factor **proteins** and genes, useful for treating or preventing alopecia, for promoting, accelerating or inducing hair growth and hair follicle repair, and in diagnosing alopecia symptoms.
DC B04 D16 D21
IN CHOI, Y J; JANG, H; KIM, S
PA (GLDS) LG ELECTRONICS INC; (JANG-I) JANG H; (KIMS-I) KIM S
CYC 2
PI US 2003036174 A1 20030220 (200347)* 37 C12P021-02 <--
KR 2002089753 A 20021130 (200347) H04M001-00
KR 386414 B 20030609 (200367) H04M001-00
ADT US 2003036174 A1 US 2002-155292 20020524; KR 2002089753 A KR 2001-28620 20010524; KR 386414 B KR 2001-28620 20010524
FDT KR 386414 B Previous Publ. KR 2002089753
PRAI KR 2001-28620 20010524
IC ICM C12P021-02; H04M001-00
ICS **A61K007-06**; **A61K007-11**; C07H021-04; **C07K014-475**; C12N005-06
AB US2003036174 A UPAB: 20031017
NOVELTY - An isolated hair follicle growth factor **polypeptide** (I) having a sequence of 208 amino acids (P1), or a sequence of amino acids 40-208 or 69-208 (P1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) an isolated nucleic acid molecule encoding (I);

(2) a vector comprising a nucleic acid molecule of (1);

(3) a host cell transfected by a vector comprising a transcription promoter, a DNA encoding a **polypeptide** consisting of amino acids 69-208 of (P1), and a transcription terminator, where the promoter is operably linked to the DNA and the DNA is operably linked to the transcription terminator;

(4) a method of producing a **polypeptide** (I) by culturing a host cell transfected by a vector of (3) under conditions such that the **polypeptide** is expressed, and isolating the **polypeptide** from the culture;

(5) a composition comprising a **polypeptide** or nucleic acid above, and a carrier;

(6) a method for stimulating hair follicle growth comprises administering the composition of (5) to hair follicles;

(7) a method for transplanting hair in a subject by supplementing scalp hair follicles or grafts with a **polypeptide** consisting of amino acids 69-208 of P1, and transplanting the supplemented hair grafts or follicles with the **polypeptide** to the bald or thinning area of the subject; and

(8) a method for diagnosing alopecia in a subject comprising collecting a blood or tissue sample from the subject and detecting hair follicle growth factor (HFGF) **proteins** or a DNA encoding the HFG **protein** in the sample.

ACTIVITY - Dermatological; **cosmetic.**

MECHANISM OF ACTION - Gene therapy.

USE - The hair follicle growth factor **proteins** and genes are useful for treating or preventing alopecia, in promoting, accelerating or inducing hair growth and hair follicle repair, for hair transplantation in alopecia patients, and in diagnosing alopecia symptoms.

Dwg.0/9

FS CPI

FA AB; DCN

MC CPI: **B04-C01G**; B04-E02F; B04-E08; B04-F0100E; B04-H0100E; B04-H0600E; **B04-N02A0E**; B11-C08F4; B12-K04A; B12-K04E; **B14-R02**; B14-S03; D05-C12; D05-H08; D05-H09; D05-H12A; D05-H12E; D05-H14; D05-H17A2; D05-H17A6; D05-H18

TECH UPTX: 20030723

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred **Polypeptide**: The glutamic acid at position 87 of the **polypeptide** (I) is replaced by aspartic acid.

Preferred Nucleic Acid: The codon encoding glutamic acid at position 87 of P1 is replaced by with a codon encoding aspartic acid. The isolated nucleic acid molecule is DNA, RNA or genomic DNA, preferably DNA.

Preferred Vector: The vector further comprises a promoter and a transcription terminator, where the promoter is operably linked to the DNA encoding (I), and the DNA is operably linked to the transcription terminator. The vector is pGEMT-HFGF.

Preferred Host Cell: The host cell Escherichia coli.

Preferred Composition: The composition contains the **polypeptide** of 0.1-100 ng/ml of the composition, preferably 30 ng/ml of the composition. The composition is administered topically to hair follicles of a scalp, and is a topical formulation such as solution, cream, ointment, gel, or lotion. The composition may also be applied through the use of a transdermal patch.

L23 ANSWER 16 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN **2003-479370** [45] WPIX

CR 1998-052002 [05]

DNC C2003-127986

TI Composition for treating skin disorders, comprises acid protease and acidic buffer comprising an acid that reversibly disassociates hydrogen ions and that has buffering capacity at pH values below that of the skin surface.

DC A96 B04 D16 D21

IN BISHOP, M; GILLIS, G; NORTON, S J

PA (BISH-I) BISHOP M; (GILL-I) GILLIS G; (NORT-I) NORTON S J; (ACTI-N) ACTIM ORGANICS INC

CYC 1

PI US 2002102285 A1 20020801 (200345)* 16 A61K038-48 <--
US 6656701 B2 20031202 (200404) C12Q001-37

ADT US 2002102285 A1 CIP of US 1999-354687 19990716, US 2002-59790 20020129; US 6656701 B2 Div ex US 1996-664056 19960613, CIP of US 1999-354687 19990716, US 2002-59790 20020129

FDT US 6656701 B2 Div ex US 5976556, CIP of US 6569437

PRAI US 2002-59790 20020129; US 1999-354687 19990716; US 1996-664056 19960613

IC ICM A61K038-48; C12Q001-37
ICS **A61K006-00**; **A61K007-00**; C12Q001-00

AB US2002102285 A UPAB: 20040226

NOVELTY - A composition (I) comprises:

(i) an acid protease that is enzymatically active below pH 5.5 and is inactive at or above pH 5.5; and

(ii) an acidic buffer comprising an acid that reversibly disassociates hydrogen ions and that have a buffering capacity at pH values below that of skin surface i.e., approximately pH 5.5 which, when applied to skin, temporarily lowers the surface pH of skin to below pH 5.5.

DETAILED DESCRIPTION - A new composition (I) comprises:

(i) an acid protease which is enzymatically active below about pH 5.5 and which is significantly inactive at or about pH 5.5; and

(ii) an acidic buffer comprising an acidic buffering component that can reversibly disassociate hydrogen ions and have buffering capacity at pH values below that of the surface of the skin i.e., approximately pH 5.5 which, when applied to skin, temporarily lowers the surface pH of the skin to below about pH 5.5.

The acidic buffer is subjected to neutralization by natural epidermal processes, so that the surface pH of the skin, to which the acidic buffer was applied, returns to about pH 5.5.

An INDEPENDENT CLAIM is also included for a method comprising an acid protease which is enzymatically active below about pH 5.5 and which is significantly inactive at or about pH 5.5, and an acidic buffer comprising at least one acidic buffering component that can reversibly disassociate hydrogen ions and have buffering capacity at pH values below that of the surface of the skin i.e., approximately pH 5.5 which, when applied to skin, temporarily lowers the surface pH of the skin to below about pH 5.5, where the acidic buffer is subjected to neutralization by natural epidermal processes, so that the surface pH of the skin, to which such acidic buffer was applied, returns to about pH 5.5.

ACTIVITY - Keratolytic; Antipsoriatic; Dermatological; Antipruritic; Dermatological; Virucide; Antiinflammatory; **Cosmetic**; Antiseborrheic.

MECHANISM OF ACTION - Epidermal exfoliation enhancer; Epidermal skin renewal enhancer; Effects of skin atrophy regulator. The composition was tested at differing concentrations of the acid protease pepsin, 1:15000 NF and the acidic buffer lactic acid on individual human volar forearms for the enhancement of skin exfoliation and cell renewal. Twenty subjects between the ages of 30 and 60 years were selected and were required to refrain from using any products on their volar forearm, except those supplied in conjunction with the test procedure for 5 days before and during the test period. Each volar forearm of each subject was patched with adhesive bandages, to which had been applied 1 - 2 gm/cm2 of 5 % ultra-pure dansyl chloride milled into petrolatum. Three of the bandages on each forearm were used as test sites and the remaining one was used as a control. The four sites on each forearm of each subject were covered with the dansyl chloride-loaded bandages and were left undisturbed for 24 hours. At the end of the 24 hour period, the bandages were removed, the sites washed and staining of the sites by dansyl chloride was confirmed by viewing with a long wave ultra-violet (UV) light source to detect fluorescence by the dansyl chloride. The six non-control dansyl chloride stained test sites on each subject received twice daily topical applications of 1 - 2 ml/cm2 of the test composition. Upon applications, the test composition was rubbed into the skin at the test sites until the sites were no longer wet. After the dansyl chloride staining was verified, the test sites and the control sites were left uncovered and were handled in the same manner except that the test sites received the test applications and the control sites did not receive any test composition. Exfoliation/keratolysis of the stratum corneum was determined by visualizing the dansyl chloride stains daily under a long wave UV light source to measure stain removal. The percent increase in exfoliation/keratolysis and accompanying cell renewal of the stratum corneum was calculated. The results showed that the acidic buffer lactic acid had some positive keratolytic/cell renewal effects alone. These positive keratolytic/cell renewal effects were significantly enhanced in the presence of the acid protease pepsin.

USE - (I) is useful for treating or preventing abnormal biological conditions, diseases or disorders such as skin atrophy, i.e., the thinning

and/or general degradation of the dermis often characterized by a decrease in collagen and/or elastin as well as decreased number, size and doubling potential of fibroblast cells and other maladies such as dry skin, severe dry skin, dandruff, acne, keratoses, psoriasis, eczema skin flakiness, pruritis, age spots, lentigines, melasmas, wrinkles, warts, blemished skin, hyperpigmented skin, hyperkeratotic skin, inflammatory dermatoses, age-related skin changes and skin in need of skin cleansers. (I) is useful for improving the texture or appearance of the skin, and/or for enhancing epidermal exfoliation and/or for enhancing epidermal skin renewal, and for regulating the effects of skin atrophy.

ADVANTAGE - Control of the time period required for the pH of the surface of the skin to return to a pH of about 5.5 after topical application of (I) allows for control of the activity of the protease enzyme. This control of proteolytic activity overcomes the drawbacks and complications found in prior art, such as itching, burning, blistering etc., caused by broad pH spectrum proteolytic enzymes. To avoid the drawbacks and complications found in prior art, the period of time should not exceed about 4 hours, preferably between about 30 minutes to about 1 hour for any individual application of (I).

Dwg.0/3

FS CPI

FA AB; DCN

MC CPI: A12-V01; A12-V04C; **B04-C01**; B04-C02; B04-C03; B04-E01; B04-L05C; B05-A01A; B05-A01B; B05-B02A3; B10-A07; B10-C02; B10-C04D; B10-C04E; B10-E04C; B14-A02; **B14-N17**; **B14-R01**; **B14-R02**; D05-A02C; D08-B04; D08-B09A

TECH UPTX: 20030716

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The acid buffering component to the acid buffer may be a polymer, such as, a synthetic polymer selected from carbomer, pemulin, stabileze, polyacrylate and their mixtures.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The acid buffering component to the acid buffer is selected from organic acids, inorganic acids, and their mixtures, preferably an organic acid. The organic acid is a monomer (selected from lactic acid, citric acid, sorbic acid, glycolic acid, malic acid, gluconic acid, glucuronic acid, succinic acid, tartaric acid and their mixtures or phosphoric aid, sodium bisulfate, potassium bisulfate, sodium sulfate, potassium sulfate and their mixtures), a polymer (selected from **polypeptides** (an acid protease itself), polynucleic acids (such as DNA, RNA, or their mixtures), polysaccharides (such as hyaluronic acid, pectin, pectinic acid, polylactic acid, polycitric acid, polysorbic acid, polygluconic acid, polyglucuronic acid, polysuccinic acid, polytartaric acid, chondroitin-4-sulfate, chondroitin-6-sulfate, dermatan sulfate, heparin and their mixtures) and their mixtures or pyrophosphoric acid, triphosphoric acid, polyphosphoric acid and their mixtures).

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: In (I), the acidic buffer further comprises a pharmaceutically or **cosmetically** acceptable carrier, vehicle or excipient, where the pharmaceutically or **cosmetically** acceptable carrier, vehicle or excipient component is selected from lotions, tinctures, creams, emulsions, gels, ointments, water, water-workable cream, polyvinyl alcohol, hydroxyethyl cellulose, cellulose, hydrophilic acrylic polymer, emollients, skin moisturizing components, enzyme stabilizers, glycerol, surfactants, preservatives, and hydrophilic thickening agents used in pharmaceutical formulations and their mixtures.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Composition: The acid protease is selected from fungal, plant, bacterial or mammalian proteases and their mixtures, preferably pepsin, cathepsins, human urinary acid protease, rhizopuspepsin, penicillopepsin, endothiapepsin, Mucor miehei acid protease, M. pussillus acid protease, Aspergillus niger acid protease and their mixtures. The acid protease is present in an amount of about 0.001 - 99.999 %, preferably 0.1 - 5.0 %, or 1.0 - 5.0 %, by weight of the final composition. The acid protease has a total specific activity of

about 1.0 - 10000, preferably 500 - 1500 HUT units/mg.

L23 ANSWER 17 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-352558** [33] WPIX
CR 1998-129910 [12]; 2002-163245 [21]
DNC C2003-092844
TI Preparation of marine invertebrate type V **telopeptide** containing collagen useful in **cosmetic** composition involves extracting collagen with dilute acid followed by precipitation and washing.
DC B04 D21
IN WOLFINBARGER, L
PA (WOLF-I) WOLFINBARGER L
CYC 1
PI US 2002147154 A1 20021010 (200333)* 12 A61K038-39 <--
ADT US 2002147154 A1 CIP of US 1995-405979 19950317, Cont of US 1997-959272 19971028, US 2001-999262 20011128
FDT US 2002147154 A1 CIP of US 5714582
PRAI US 1997-959272 19971028; US 1995-405979 19950317; US 2001-999262 20011128
IC ICM A61K038-39
ICS **C07K014-78**
AB US2002147154 A UPAB: 20030828
NOVELTY - Preparation of marine invertebrate type V **telopeptide** (A) containing collagen from an invertebrate marine animal involves extracting collagen from the marine animal with dilute acid to produce extracted collagen followed by precipitation and washing.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a **cosmetic** composition comprising (A) (0.00130, preferably 0.2-5 weight%) where the collagen is fibrillar;

(2) a **cosmetic** cream comprising (weight%): water (20-70), oil (30-70), and (A) (0.001-30);

(3) a **cosmetic** lotion comprising (weight%): water (10-80), oil (20-80), and (A) (0.001-30);

(4) a shampoo comprising (weight%): water (10- 90), surfactant (1-40), and (A) (0.001-30);

(5) a hair conditioner comprising (weight%): water (30-95), conditioning agent (0.5-30), and (A) (0.001-30);

(6) a colored **cosmetic** composition comprising (weight%): pigment (1-6), oil (1-50), wax (1-20), and (A) (0.001-30);

(7) a makeup formulation comprising (weight%): water (10-95), oil (5-70), pigment (5-40) and (A) (0.001-30); and

(8) a pharmacological composition comprising (A) in the form of a gelatinous, liquefied collagen gel, freeze-dried gelatin/collagen sponge or cross-linked gelatin/collagen fibrous mat.

USE - For the preparation of marine invertebrate type V **telopeptide** containing collagen (preferably alpha 1 alpha 2 alpha 3 collagen) useful in **cosmetic** composition (e.g. cream, lotion, gel, makeup, eye shadow, blush, shampoo, hair conditioner, cleanser, toner, aftershave, fragrance, nail enamel and nail treatment); for moisturizing and forming a film on human and animal skin, nails, or hair (all claimed).

ADVANTAGE - The collagen preparation provides pure marine invertebrate type V **telopeptide** containing collagen and has unique and new properties even compared to type V collagen preparation from vertebrate species. Thus obtained collagen is relatively free of higher aggregates and is viscous.

Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: **B04-C01**; **B04-N02**; **B14-N17**; **B14-R01**; **B14-R02**; D08-B01; D08-B02; D08-B03; D08-B04; D08-B09A1; D08-B12
TECH UPTX: 20030526
TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Process: The process further involves heating at 50-80, preferably 55-65 degrees C the invertebrate marine animal for 5-30, preferably 15 minutes prior to or

simultaneous with the extracting to form a gelatin preparation of (A).

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The dilute acid is dilute organic acid (preferably at least one of acetic acid, lactic acid, malic acid, citric acid, glutaric acid, or propionic acid, especially citric acid), or dilute inorganic acid (preferably hydrochloric acid) having concentration of pH 3-4.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: A salt solution (preferably at least one alkali halides, especially sodium chloride) having concentration 0.1-4 M is used to precipitate the collagen from the dilute acid solution.
TECHNOLOGY FOCUS - BIOLOGY - Preferred Collagen: The collagen is isolated from at least one species belonging to the class Scyphozoa in the Coelenterata (preferably jellyfish harvestable from marine or fresh water environments comprising mantle, tentacles and/or whole organism). The collagen preparation may contain variable amount of noncollagenous material. The noncollagenous material is noncollagenous **protein** (preferably polysaccharide, especially large and small molecular weight metabolites common to cellular metabolic activities).
Preferred Composition: The **cosmetic** composition, **cosmetic** cream, lotion shampoo and hair conditioner further comprises marine invertebrate type V **atelopeptide** containing collagen.

=> d all abex l23 9-10

L23 ANSWER 9 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-811416** [76] WPIX
DNC C2003-225629
TI Anti-inflammatory cyclic **depsipeptide** composition useful for treating, preventing, or inhibiting inflammation, particularly inflammation of skin, i.e. psoriasis, comprises Exumolide compound(s), and excipient.
DC B02 B03
IN FENICAL, W H; JACOBS, R S; JENKINS, K M; JENSEN, P R; RENNER, M
PA (FENI-I) FENICAL W H; (JACO-I) JACOBS R S; (JENK-I) JENKINS K M; (JENS-I) JENSEN P R; (RENN-I) RENNER M
CYC 1
PI US 2003166516 A1 20030904 (200376)* 13 A61K038-00 <--
ADT US 2003166516 A1 Provisional US 2001-342766P 20011228, US 2002-326987 20021224
PRAI US 2001-342766P 20011228; US 2002-326987 20021224
IC ICM A61K038-00
AB US2003166516 A UPAB: 20031125
NOVELTY - An anti-inflammatory cyclic **depsipeptide** composition comprises Exumolide compound(s); and a **cosmetically** acceptable excipient.
DETAILED DESCRIPTION - An anti-inflammatory cyclic **depsipeptide** composition comprises Exumolide compound(s) having a structure of formula (I); and a **cosmetically** acceptable excipient.
R1 = H, alkyl, aryl, or alkoxyl;
R2, R3 = each independently H, alkyl, or alkoxyl;
R4, R5 = each independently H, alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, or alkoxyl.
INDEPENDENT CLAIMS are also included for:
(a) a method of treating, preventing, or inhibiting inflammation or inflammatory disease or disorder in a subject, comprising administering to the subject Exumolide compound(s) as above; and
(b) a kit comprising Exumolide compound(s) as above.
ACTIVITY - Antiinflammatory; Dermatological; Antipsoriatic; Osteopathic; Antiarthritic; Antirheumatic.
MECHANISM OF ACTION - None given.
USE - Useful for treating, preventing, or inhibiting inflammation in

a subject, particularly inflammation of the skin, i.e. psoriasis or eczema (claimed); osteoarthritis; rheumatoid arthritis; colitis; and Crohn's disease.

ADVANTAGE - The inventive composition exhibits antibiotic activity.

Dwg.0/0

FS CPI
FA AB; GI; DCN
MC CPI: **B04-C01A**; **B04-N02A**; B14-C03; B14-C09; B14-E10C; **B14-N17**
ABEX UPTX: 20031125

ADMINISTRATION - The antiinflammatory cyclic **depsipeptide** composition is administered topically (claimed).

EXAMPLE - Exumolide A was topically applied in acetone to the inside pinnae of the ears of mice in a solution comprising an edema-causing irritant, phorbol 12-myristate 13-acetate (PMA). PMA (2 microgram/ear) alone or in combination with Exumolide A (50 microgram/ear) was applied to the left ears (5 mice per treatment group) and acetone was applied to all right ears. After 3 hours, 20 minutes incubation, the mice were sacrificed, the ears removed and bores taken and weighed. Edema was measured by subtracting the weight of the right ear (acetone control) from the weight of the left ear (treated). Results were recorded as % decrease (inhibition) or % increase (potentiation) in edema relative to the PMA control group edema. Exumolide A significantly inhibited edema in the PMA mouse ear model by 64.0%.

DEFINITIONS - Preferred Definition:
R1 = H or methyl;
R2, R3 = isobutyl;
R4, R5 = benzyl.

L23 ANSWER 10 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-810975** [76] WPIX
DNC C2003-225301
TI New **cosmetic**, pharmaceutical, or dermatological compositions containing decorin, for treating and preventing intrinsic and extrinsic aging of the skin, or for restoring skin to a more resiliency and youthful appearance.
DC B04 D16 D21
IN PANG, D Z D
PA (PANG-I) PANG D Z D
CYC 1
PI US 2003124152 A1 20030703 (200376)* 20 A61K038-48 <--
ADT US 2003124152 A1 US 2001-4176 20011102
PRAI US 2001-4176 20011102
IC ICM A61K038-48
ICS **A61K007-00**
AB US2003124152 A UPAB: 20031125

NOVELTY - A **cosmetic**, pharmaceutical, or dermatological composition containing decorin dissolved or dispersed for topical administration in a **cosmetic**, dermatological, or pharmaceutical vehicle, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for treating the skin of a human to combat aging by applying to the skin a decorin-containing **cosmetic**, dermatological, or pharmaceutical composition.

ACTIVITY - Antiaging.

Human decorin core **protein** (HDCP) cream was applied to one side of the facial skin area between the temple, the outer canthus and the upper cheek. A control study was also carried out at the same time on the other side of the facial skin using a control cream having the same ingredients with the HDCP cream except it does not contain HDCP. Twenty-four volunteers, 21-50 years old, were included in the study. Each volunteer was given 2 jars of color-labeled creams, the HDCP and the control, and were told to use one cream on one side of the facial skin 2 times a day for 10 weeks. Results indicated that in the age group of

21-30, the facial skin on the side using HDCP cream was smoother than the control side and the occurrence of fine line was retarded. In the age group 31-40, fine lines disappeared and skin was smoother. In the age group 41-50, fine lines and small wrinkles were significantly reduced or diminished. Large wrinkles were dramatically toned down, and skin appeared smoother and youthful.

MECHANISM OF ACTION - None given.

USE - The decorin-containing composition is useful for treating and preventing intrinsic (due to genetic factors) and extrinsic (due to environmental factors) aging of the skin. The composition is also useful for repairing damaged skin from aging, restoring skin to a more resiliency and youthful appearance, and reducing, eliminating or even reversing the signs of aging, including loss of elasticity, fine lines and wrinkles.

ADVANTAGE - The decorin-containing composition overcomes the drawbacks of other anti-aging agents, such as causing skin allergy reactions, discomforts, susceptibility to damaging effects of the sun after application, and accelerated photoaging of the skin.

Dwg.0/6

FS CPI

FA AB; DCN

MC CPI: **B04-N06; B04-N0600E; B14-N17;** **B14-R01;** D05-C12; D05-H14; D05-H17A6; D08-B09A3

ABEX UPTX: 20031125

ADMINISTRATION - The decorin-containing composition is administered topically. No dosage is given.

EXAMPLE - The double stranded cDNA of human decorin core **protein** (HDCP) was synthesized from human skin fibroblast cDNA library using Taq DNA polymerase, and a set of upstream and downstream oligonucleotide primers for HDCP. The PCR-amplified DNA fragments were gel-purified and cloned into pGEM-T vectors. After ligation, DNA was transformed into Escherichia coli DH5alpha cells. Plasmid isolated from one of the colonies was confirmed to contain the right size of the insert by analyses of restriction endonucleases and to comprise a DNA sequence of HDCP by DNA sequence in both directions by the chain termination method. Plasmid containing the insert encoding the HDCP was digested with restriction endonuclease to release the DNA insert. Fragments were purified and ligated to expression vector pZDGU9, which was then transformed into competent E. coli strain N4830-1 for expression and purification of HDCP. HDCP samples were analyzed by 8 % sodium dodecyl sulfate (SDS) polyacrylamide gel electrophoresis, and **protein** bands were visualized by Coomassie blue staining. The apparent molecular weight of HDCP was 40 kDa and its PI is 8.7.

=> d all abex tech 12

L23 ANSWER 12 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN **2003-670026** [63] WPIX

DNN N2003-534934 DNC C2003-182613

TI Nanoparticle containing microsphere used for e.g. medical applications such as drug delivery, comprises inner layer having nanoparticle bound to part of structure directing agent, and outer layer coating inner layer.

DC A96 B04 B07 C07 D13 D21 D22 J04 L03 P33

IN BARTL, M H; BIRKEDAL, H; CHA, J; DEMING, T J; STUCKY, G D; SUMEREL, J L; WONG, M

PA (BART-I) BARTL M H; (BIRK-I) BIRKEDAL H; (CHAJ-I) CHA J; (DEMI-I) DEMING T J; (STUC-I) STUCKY G D; (SUME-I) SUMEREL J L; (WONG-I) WONG M; (REGC) UNIV CALIFORNIA

CYC 101

PI US 2003082237 A1 20030501 (200363)* 20 C12Q001-68 <--

WO 2003062372 A2 20030731 (200363) EN C12N000-00

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

AU 2002365255 A1 20030902 (200422) C12Q001-68

ADT US 2003082237 A1 Provisional US 2001-326870P 20011002, Provisional US 2002-360939P 20020301, US 2002-263271 20021002; WO 2003062372 A2 WO 2002-US31446 20021002; AU 2002365255 A1 AU 2002-365255 20021002

FDT AU 2002365255 A1 Based on WO 2003062372

PRAI US 2002-263271 20021002; US 2001-326870P 20011002; US 2002-360939P 20020301

IC ICM C12N000-00; C12Q001-68
ICS A01N025-28; A61K009-16; A61K009-50; A61K048-00; A61K049-00; B32B003-26

AB US2003082237 A UPAB: 20031001

NOVELTY - Nanoparticle containing microsphere comprises a structure directing agent, an inner layer and an outer layer. The inner layer comprises nanoparticle (I) bound to a part of the structure directing agent and the outer layer coats the inner layer comprising nanoparticle (II) bound to another part of the structure directing agent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a nanoparticle vesicle which comprises structure directing agent comprising block **copolypeptide** or polyelectrolyte and nanoparticle (I) bound to the structure directing agent;

(2) a hollow microsphere which comprises an inner layer having an aggregate of first nanoparticles (I) and an outer layer coating the inner layer having aggregate of second nanoparticles (II);

(3) a composition for making nanoparticle containing microspheres which comprises structure directing agent comprising block **copolypeptide** or polyelectrolyte and nanoparticle (I) having a binding affinity for at least a part of the structure directing agent;

(4) production of nanoparticle containing vesicle which comprises combining a structure directing agent in nanoparticle (I) for a time and under conditions for the nanoparticle to bind to a part of the structure directing agent and self assembling into a vesicle, and

(5) production of nanoparticle containing microsphere which comprises combining the structure directing agent and nanoparticle (I) for a time and under conditions for the nanoparticle (I) to bind to a part of the structure directing agent and self-assemble into an inner shell, and adding nanoparticle (II) of different type, under conditions for the nanoparticle (II) to bind to another part of the structure directing agent and for the nanoparticle (II) to form an outer shell coating the inner shell containing nanoparticle (I).

USE - Used for medical applications such as delivery of drug molecules, therapeutic compounds, radioactive compounds, chemotherapy agent **proteins**, deoxyribonucleic acids, ribonucleic acids, magnetic resonance imaging contrast agents, for catalysis, ceramics such as coatings as a thin film of hollow spheres or dielectric material for electronics, as a component in dispersions such as paints, suntan lotions and perfumes, for agricultural applications, for consumer food products, **cosmetics** and for microparticle containing microdevices for therapeutic agent delivery, sensing and medical imaging.

ADVANTAGE - The nanoparticle containing microspheres provide organic-inorganic hybrid materials having desirable encapsulation properties. The organics from the hybrid spheres can be removed easily to produce hollow spheres. The nanoparticles have a dual functionality of cell targeting and therapeutic delivery. A large number of primary functionalized nanoparticles are delivered to a targeted side by a single vesicle structure, so that enhanced concentration of medical imaging agents at the desired cellular location is obtained. The microspheres have mechanical strength and porosity, imparted by silica nanoparticles. The porosity of microparticles allows solute exchange, providing a stable environment for therapeutic contents and increasing the half-lives of therapeutic contents.

Dwg.0/11

FS CPI GMPI

FA AB; DCN

MC CPI: A12-V00V; **B04-C01**; B04-C03; B05-A02; B05-B02C; B11-C09; **B14-R01**; **C04-C01**; C04-C03; C05-A02; C05-B02C; C11-C09; **C14-R01**; D03-H01S; D08-B; D09-E01; J04-E; L03-B03F; L04-C12

ABEX UPTX: 20031001

EXAMPLE - A diblock **copolypeptide**, poly(L-lysine200-b-L-cysteine30) or Lys200Cys30 was synthesized and used to direct the assembly of aluminum/silica hybrid spheres. Lys200Cys30 solution having a concentration of 2.5 mg/ml, was prepared. A sol containing gold nanoparticles (125 micro-l) was added to polymer solution (50 micro-l). The color of the gold sol changed from ruby red to violet purple after addition, indicating the gold nanoparticles underwent aggregation that red-shifts the plasma resonance frequency.

After 5 minutes of aging with occasional agitation, sol containing silica nanoparticles (125 mul) was next added, causing the clear, purplish solution to become a turbid, purplish solution. After above 15 minutes, a purple precipitation was observed and after 24 hours, a purple floe was found at the vial bottom. This precipitate was found to contain large spherical compounds having hollow center. The spheres obtained, were found to have a diameter of 500-3 micro-m and the shapes were found to be single dimple (apples) and sphere with an opening (cups).

TECH UPTX: 20031001

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The block **copolypeptide** has a C-terminus and N-terminus. The C-terminus or N-terminus is functionalized with a functional group. The block **copolypeptide** contains at least two **peptide** blocks, each block having a length of 10-400 amino acid residues or one block of 10-400 cysteine residues or 10-400 lysine residues. The polyelectrolyte is poly-L-lysine or poly(allylaminehydrochloride). The nanoparticle (I) is bound to polyelectrolyte by directional charge-stabilized hydrogen bonding.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The nanoparticle (I) comprises metal, metal non-oxide, metal oxide or organics, preferably semiconductor nanocrystals, gold nanoparticles, silver nanoparticles, magnetic nanoparticles and nanoparticles functionalized to introduce therapeutic or imaging agents. The nanoparticle (II) comprises metal, metal non-oxide, metal oxide or organics, preferably silica nanoparticles, cadmium selenium quantum dots, and nanoparticles functionalized to introduce a recognition element for in vivo targeting.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The nanoparticle containing microsphere also comprises a payload encapsulated within the inner layer. The payload comprises drug molecules, therapeutic compounds, radioactive compounds, chemotherapy agents, nucleic acids, **proteins**, magnetic resonance imaging contrast agents, preservatives, flavor compounds, small compounds, colored dye molecules, fluorescent dye molecules, organometallic compounds, enzyme molecules, pesticide, fungicide or fertilizer. Nanoparticle (II) has a binding affinity for a part of the structure directing agent.

=> d all 11 l23

L23 ANSWER 11 OF 17 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2003-777600** [73] WPIX
DNC C2003-213907
TI New **peptide** or its **cosmetically** acceptable salt, useful for darkening skin.
DC B04 D21
IN SEIBERG, M; SHAPIRO, S S
PA (SEIB-I) SEIBERG M; (SHAP-I) SHAPIRO S S; (JOHJ) JOHNSON & JOHNSON CONSUMER CO INC
CYC 100
PI US 2003138388 A1 20030724 (200373)* 8 A61K007-21 <--

WO 2003099841 A2 20031204 (200406)# EN C07K000-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
AU 2002257328 A1 20031212 (200468)# A61K007-021 <--
ADT US 2003138388 A1 US 2001-862145 20010521; WO 2003099841 A2 WO 2002-US16734 20020524; AU 2002257328 A1 AU 2002-257328 20020524, WO 2002-US16734 20020524
FDT AU 2002257328 A1 Based on WO 2003099841
PRAI US 2001-862145 20010521; WO 2002-US16734 20020524;
AU 2002-257328 20020524
IC ICM **A61K007-021**; **A61K007-21**; C07K000-00
ICS **C07K007-06**
AB US2003138388 A UPAB: 20031112
NOVELTY - A **peptide** (I) or its **cosmetically** acceptable salt, is new.
DETAILED DESCRIPTION - A **peptide** of formula (I), or its **cosmetically** acceptable salt, is new.
A1 = Ser or 2,3-diaP, or is absent;
A2, A3 = Val, Leu, Ile, or Cha;
A4 = Gly, Ala;
A5 = Lys, Arg, or Har;
A6 = Val, Leu, Ile, or Cha, or is absent;
R1, R2 = H, 1-12C alkyl, 7-10C phenylalkyl, or C(O)E1;
E1 = 1-20C alkyl, 3-20C alkenyl, 3-20C alkynyl, phenyl, 3,4-dihydroxyphenylalkyl, naphthyl, or 7-10C phenylalkyl; and
R3 = OH, NH2, 1-12C alkoxy, 7-10C phenylalkoxy, 11-20C naphthylalkoxy, 1-12C alkylamino, 7-10C phenylalkylamino, or 11-20C naphthylalkylamino.
Provided that when A1 is Ser or 2,3-diaP, A6 is absent. Either R1 or R2 is C(O)E1, the other must be H.
Note: Cha refers to cyclohexylalanine; 2,3-diaP refers to 2,3-diaminopropionic acid; and Har refers to homoarginine.
An INDEPENDENT CLAIM is also included for a composition comprising the **peptide** and a **cosmetically** acceptable topical carrier.
ACTIVITY - Dermatological.
Melanocytes were rinsed three times with melanocytes growth media without PMA and keratinocytes were plated to establish the co-cultures. Co-cultures were treated for 3 days with test **peptides** and pigments, and assayed for cell viability and pigment level on the fourth day. Cell viability was assayed using alamarBlue. Results showed that the **peptides** provided enhanced pigmentation.
MECHANISM OF ACTION - None given.
USE - The **peptide** is used in darkening the skin, (claimed).
ADVANTAGE - The **peptide** could enhance the body's natural pigment content, resulting in a desired skin color and enhanced photo-protection, without the need of UV exposure.
Dwg.0/0
FS CPI
FA AB; GI; DCN
MC CPI: B04-A10; B04-B04E; **B04-C01B**; **B14-N17**;
B14-R01; **B14-R05**; D08-B; D08-B09A

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FILE 'HOME' ENTERED AT 13:37:50 ON 16 JUL 2005

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